

RESTORATION OF SHOP, POMPEII

Shop-fronts and their Treatment

BY A. J. DAVIS [F.]

[Read before the Royal Institute of British Architects on Monday, 15 December 1924]

THE subject I am dealing with to-night is one of considerable interest both to shop owners and their architects.

The commercial and æsthetic developments which have taken place during recent years in the treatment of the shop-front clearly show that after a period of neglect this problem is at last receiving the attention it deserves, and that the merchant is no longer content to leave the decorative treatment of his window to the tender mercies of the contractor and fitter. The modern shop-front is essentially a problem requiring artistic consideration. It is one which appears frequently in most architects' practices, and its many aspects present opportunities where skill and taste can be displayed to the advantage of the client, and to the embellishment of the street in which his premises are situated. It has become more and more recognised that an appropriate shop-front is in itself a commercial asset of no small value, in the same way as the beauty of a picture is enhanced when presented in a well-designed frame.

A great deal has already been written on this matter, but I think it will be of some interest to go over the ground again and discuss the subject from various points of view.

I propose to confine my remarks to the smaller shop, excluding the fronts of large departmental

stores, which present special features and are outside the scope of this paper.

History provides us with very limited information regarding the shop of ancient times. In the early days of civilisation commerce was confined principally to the open market-place. As far as we know, the Egyptians, Assyrians, and even the Phœnicians, the great traders of the ancient world, were content to carry on their business in the Agora or market-place of the city.

It seems evident that, apart from the primitive trading booth, the workshop where the craftsman made and sold his wares is probably the earliest type of shop. An idea of its appearance may be gathered from a French restoration of the premises of an ancient Egyptian copper-smith, and it is apparent that from this the bazaar gradually developed, in appearance somewhat similar to those seen in Oriental countries to-day.

In the Græco-Roman towns of Central Italy excavation has revealed the remains of shop premises, giving evidence of their existence as early as the second century B.C. There we find that the outer parts of the houses facing the principal thoroughfares were utilised as shops, the fronts of which were open to the street. The counter, frequently of masonry, was in most cases arranged so that customers could make

their purchases, if they wished, without going inside. Large jars were often set in it, to serve as receptacles for the wares and edibles exposed for sale. Sometimes on the side next to the wall there were little steps on which measuring cups and other vessels were placed. At the inner end there was occasionally a depression over which a vessel could be heated. The shop-front was closed with upright, overlapping boards set in small grooves at the top and bottom. Over the shop, about 12 feet above the ground, there was an upper floor or "pergula," along the open front of which was a balustrade, and a separate set of shutters was provided.

In ancient Roman times the shops were built low, and over them small closed rooms were made, frequently accessible from the street by means of a narrow door and stairway. Shops with their upper floors are advertised for rent in the painted inscriptions found at Pompeii, of which the following is an example :—

To let for the space of five years, from the 15th day of August next to the 15th day of the sixth August thereafter, the Venus Bath, fitted up for the best people, shops, rooms over shops, and second storey apartments in the property owned by Julia Felix, daughter of Spurius Julius.

It is therefore evident that at this early period in Italy shops were already in existence; but in England and on the Continent no information can be ascertained of similar premises until as late as the thirteenth century.

In the history of the Middle Ages frequent reference is made to the open market, the stall and the saint's day fairs; but shops, as such, were simple covered sheds projecting in front of dwellings, and the few establishments of this nature were confined to the principal streets. As a rule, the merchant used storerooms for warehousing purposes, and the chief opportunity he had for displaying his goods was during the annual fairs, when the bulk of the trade was carried on.

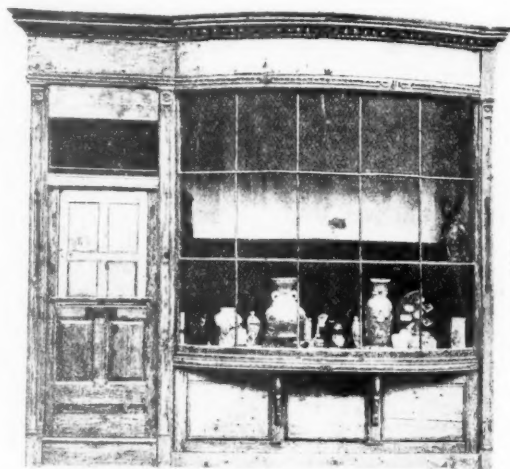
These storerooms were usually half underground, and vaulted with stone. The room on the first floor over the storeroom was called the "solar." This was the chief dwelling room of the family of the merchant, and was approached by an external flight of steps. There are several small well-preserved houses of this type remain-

ing at Kidwelly, in South Wales, and at Winchelsea, near Rye, and a number of cellars at Chester, where the upper part of timber construction has been destroyed by fire.

Possibly the celebrated "Rows" at Chester and Shrewsbury derive their origin from this circumstance. In rebuilding the town after a great fire, it was found more convenient to take a passage out of the solars, and to form a sort of bazaar for shops upon the top of the vaults, than to use the cellars themselves, which faced a narrow roadway and were otherwise inconvenient.

There was further provision for storage in the roof, used chiefly for corn and other perishable goods, which were hoisted up by means of a crane. On the Continent these storerooms in the roof, with their cranes, are still in common use, notably at Amsterdam, where the absence of cellars has obliged the merchants to provide warehouse accommodation in extensive gables overhanging the canals.

Very limited progress is to be recorded in the thirteenth and fourteenth centuries, but advance may be noted in the early part of the fifteenth century, when we find that shops had their fronts so made that the lower half of the boarding which secured the opening could be let down and supported on legs, forming a platform about



SHOP FRONT IN SOUTH KENSINGTON MUSEUM, OUT OF PETTY FRANCE, WESTMINSTER

3 feet high on which goods were exposed for sale. The upper part, being hinged at the top, could be lifted up to give protection from rain and sun. A few instances remain of shops of the fifteenth century, the most perfect being that at Butchers' Row, Shrewsbury.

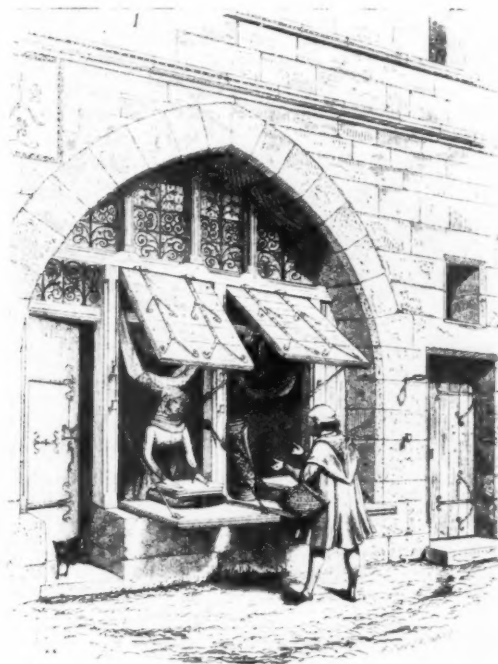
Each business was distinguished by a hanging

to them—as, for example, leather sellers in Leather Lane, corn dealers in Cornhill—and every business had its well-known sign.

In the fifteenth century on the Continent, according to Viollet-le-Duc, trades were generally concentrated in certain districts. On Saturdays retail commerce was confined to the central markets, and the merchants, having no other means of publicity, availed themselves of the town crier's



15TH CENTURY SHOP, BUTCHERS' ROW, SHREWSBURY



MEDIEVAL SHOP FRONT
From Viollet-le-Duc's *Dictionary*

street sign, a few of which are still in common use; two well-known examples being the barber's pole and basin, and the pawnbroker's three balls, the latter being derived from the shield of the Medici family, whose principal business was money-changing. The bush was the mark of a house of refreshment. In Brittany and other parts of France a small public house is called a "bouchon," and this sign is still common.

Trades generally had a street or district allocated

services to advise possible customers of goods they had for sale.

In Paris there flourished a corporation of town criers, whose duties consisted principally of advertising the wares of the business people. The King, "St. Louis," having prohibited the sale of wine in taverns, the town criers became salesmen, and stood in the streets with a pitcher in one hand and goblet in the other, to sell the wine to customers on behalf of the tavern keepers.

In commercial cities in the Middle Ages shop-keepers endeavoured as much as possible to obstruct public circulation, and by this means to arrest the attention of the passer-by. This practice continued for a considerable time, and only disappeared when city regulations came into force. The streets with open shops and displays encroaching on the roadways had a strong resemblance to Oriental bazaars. During the hours of business all vehicular traffic was debarred from circulating in the narrow thoroughfares, crowded as they were with people and obstructed with goods of all descriptions. At meal hours business was practically suspended and many shops closed. After the curfew and on feast days and Sundays the streets were silent and almost deserted.

Considerable use was made of hanging signs. Many of these were simply a rebus or graphic riddle, which appealed to the curiosity and the sense of humour of possible customers, who, in the majority of cases, were illiterate, and could only appreciate pictorial symbols.

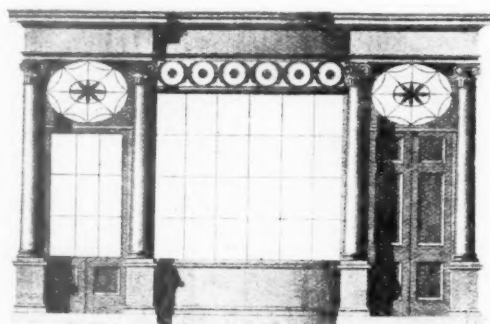
A great number of streets, even in big towns, borrowed their names from celebrated shops, and it is of interest to note that the word shop, originally spelt "shoppe," derived its origin from the French *échope*, which means "a stall."

The eighteenth century was a remarkable time so far as the development of shop-fronts was concerned. With the accession of George I the distributive industries of the country seemed to become suddenly imbued with a progressiveness responsible for the erection of a great number of shop-fronts of good architectural character. The introduction and gradual cheapening of glass gave rise to many possibilities in the treatment of the shop-front, and we find much charming originality and freedom of design.

Although the designs of the eighteenth century are considerably varied, yet there are certain marked characteristics common to them all. The windows, for instance, are almost invariably divided into squares by means of moulded glazing bars, these bars becoming lighter in form as time advanced. In fact, in regard to shop-fronts, a reliable guide as to date is the coarseness or delicacy of the woodwork details.

The shop-fronts of the nineteenth century are lighter and more refined than the sturdy and perhaps more architectural examples of the

seventeenth and eighteenth centuries. Semi-circular fanlights decorated with radiating and curved glazing bars are commonly seen. Cornices and pilasters are very much alike in the manner of their use, the enrichments being plentifully varied. Most of the fronts of this period are well proportioned, due recognition having been given to the limited uses of material, the latter being usually wood. A classic influence upon the nature of the moulding and details is quite pronounced. Thin pilasters, fluted or panelled, and usually without capitals, are frequently introduced. The stall boards are rather high, panelled in wood, and often additionally protected by some excellent wrought iron or lead work. Bead butt



LATE 18TH CENTURY DESIGN. *Taylor's Illustrations*

or bead flush doors are greatly in favour, and sliding shutters used in preference to the flap arrangement of previous centuries.

Among many old fronts that are interesting, perhaps none are more suggestive of refinement, and of that perfection of form and detail which are all essentials of a precise architectural effectiveness, than the shop-front of Messrs. Fribourg & Treyer in the north end of the Haymarket. The successful simplicity of the doors and fanlights and the details of the frieze and cornice are delightful. It was originally designed for the business of a tobacco merchant, and is still used as such; its date is about 1770.

Another interesting shop-front is that of Birch's in Cornhill, one of the oldest existing fronts in the

City, and built probably during the reign of George I. The ornament is of considerable merit, and the whole treatment reminds one of the picturesque London of a former age. Another simple Georgian front is that at Boxford, Suffolk, probably of mid-eighteenth century date. Its slender proportions are rather reminiscent of American Colonial work.

A motif of that period particularly admired is the shallow curved bay window. It occurs often, and always to good effect.

In the early nineteenth century we see examples illustrating a further step in the development of shop-front design—the architect adopting a treatment incorporating some classic details in the manner of Sir John Soane. The shop in

longer satisfied the needs of the shop-keeper. The glazing bars were an interruption to the display of his increasingly varied stock. In the rapidly developing industries of Germany and Belgium plate glass was being manufactured in larger sheets and greater quantities to meet a demand becoming every day more insistent, and it is the abuse of this material perhaps more than any other factor that is responsible for the rapid decline in shop front design subsequent to the Exhibition of 1851.

That the uninterrupted expanse of plate glass was not without its detractors even in its early days may be gathered from an article published in the *Building News* of April, 1870. Here the author remarks that a shop front must always necessarily

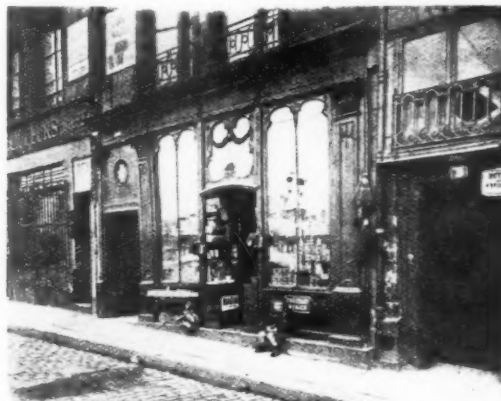


18TH CENTURY EXAMPLE AT LEWES, SUSSEX

Artillery Lane is an example showing a clever and original adaptation of classic form and details. The architectural treatment of the two doorways is distinctive.

The examples I have mentioned typify a variety of treatments ranging from extreme simplicity, hardly architectural at all except for their fine proportion and scale, to the more sophisticated design of a shop at Lewes, in which the doorway and flanking windows are separated by a little wall space, but tied together by the use of arches of approximately equal size and of the same decorative pattern, expressing a highly co-ordinated architectural design.

Following this period of intensive development it is perhaps inevitable that a decline should manifest itself. The charming little fronts no



FRENCH 18TH CENTURY SHOP FRONT NOW IN METROPOLITAN MUSEUM, NEW YORK

prove a very tough architectural subject, so tough indeed that a number of architects are content to leave it alone altogether. An exceedingly common practice is to throw a strong bressumer across the whole front of the building at the height of the first storey, propping it up with one or two thin iron pillars and leaving a gaping chasm below which the shopkeeper may afterwards fill up at his pleasure with any deformity his own want of taste or that of the artisan he employs may dictate.

The upper part of the house, which in ordinary streets comes least into view, will thus often give tokens of having been designed with a knowledge of the rules of architecture, while the lower portion, which is the most prominent feature and is capable

of giving completeness to the whole, will consist either of the gaping chasm already mentioned, enclosed but not concealed with plate glass, or of some pattern selected from the catalogue of a manufacturer entirely out of keeping with the elevation of the house front above.

As to plate glass, the shop owner counts the inches with as much eagerness as a farmer does his acres of land and thinks they are productive in much the same manner. His rent is regulated to a very large extent by the length of his frontage, and he naturally thinks it is to his advantage to utilise every possible inch of it for display of his goods. He therefore votes every pier which supports the upper part of the building an obstruction and a nuisance, every pillar must be as thin as possible and be put as far as it can out of sight, and the whole super structure, as far as appearances go, must hang unsupported in mid-air.

We believe the main reason why we have so few artistic shop fronts is to be found in the many contrarities which have to be reconciled in them. The shopkeeper requires the gaping chasm and his plate glass. He is firmly convinced that the open space serves his purpose best, and when he yields a little on this point he insists on vulgar gilt lettering and as much gaudy ornament as possible to attract customers. Thus our street architecture progresses far too slowly, and where we do not find a dull uniformity we are frequently afflicted with a medley of incongruous and inartistic conceptions worthy only of a nation of shopkeepers. The precise point, in fact, wherein the salesman needs education is that good architecture forms a feature of attractiveness in itself. A shop front composed of nothing but plate glass is like a picture without a frame, and the articles displayed by the tradesman without the accessories of appropriate building decorations lose half their power of attracting customers.

The passion for enormous sheets of plate glass has done more perhaps to prevent the creation of good designs than anything else. The utmost the architect can attempt is the introduction of sash bars in brass, mahogany or some coloured material, and these he is called upon to keep as thin as possible in order that the valuable glass sheets may display their full dimensions. These instructions, while embarrassing to the designer, seem to us entirely unnecessary and useless in a multitude of businesses.

This protest of fifty years ago marks the early stages of a period of retrogression in shop front design, dating from about the time of the 1851 Exhibition, and it must be confessed that to a large extent these remarks have their full significance to-day.

The shop front, as I have endeavoured to show, has a history establishing, in the fully developed types of the eighteenth century, a tradition which still has vitality. The artistic character of these old examples, their charm, variety and fine proportions are all qualities expressing the ideal of the small shop front.

In seeking inspiration it becomes a question as to what extent will the tradition set by these Old English types answer the needs of to-day. It is not a matter of perfunctory copying. The retail shop of the present day is a subject of greater commercial variety, and it must reflect the more complex and specialised nature of the business carried on. We must have a wider variety of ideas to correspond with our many kinds of shops, and we have a further opportunity for diversifying each design in a more abundant choice of materials.

Modern shopkeepers have introduced a practice which opens a new field in design. The custom of recessing the display front so as to provide one or more openings off a corridor or vestibule leading from the pavement into the shop. This arrangement is called "an arcade," and here the buying public may circulate and view a large part of the tradesmen's stock excellently displayed before entering the building. This treatment attracts the casual passer-by, and it also economises the salesman's efforts. Architecturally it introduces a new conception: instead of a screen across the front, we have an intricate series of parts, and design changes from two into three dimensions, presenting endless possibilities.

With the growth of our centres of population and corresponding increase in property values and rentals, the arcade treatment has become of more and more importance. By adopting this type of plan and providing one or more island show cases, a 20-feet frontage may easily be made to develop a display of 60 feet or more. Although the financial returns are probably not in proportion to this increase, they are related to it to such an extent that the extra cost of installation has proved a sound investment to many merchants.

Apart from the broader considerations of general

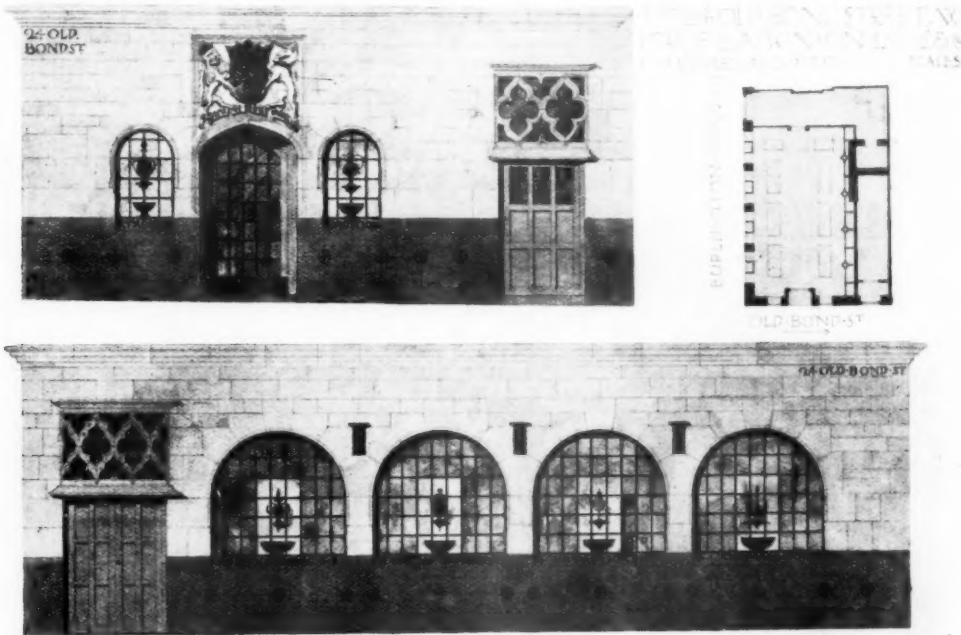
principles, the needs of the shopkeeper as affecting the design of the show window are many and various, depending on the type of business, the goods to be displayed, the locality, the custom to be invited and the reputation to be established.

It may generally be stated that large, open spaces of window create an effect of cheapness upon the passer-by, which is not always the impres-

tents by a number of separate and uncrowded window compositions is a psychological fact that no one will deny.

On the other hand, the shop for the sale of numerous articles of a cheap nature designed to attract the pennies of the casual pedestrian is a problem requiring a very different solution. It is here that the plate glass front has its merits.

Architecturally there are several principles

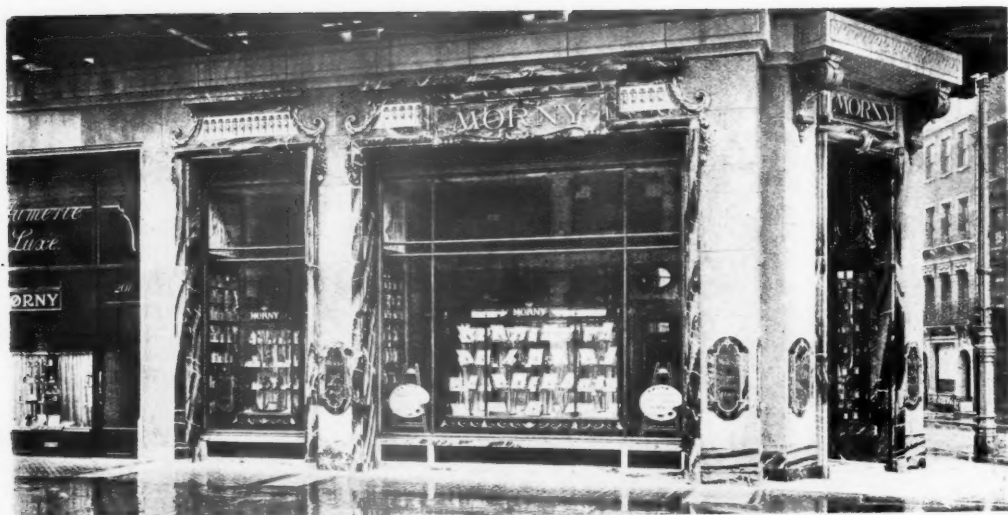


MESSRS. ATKINSON'S PERFUME SHOP, LONDON. Architect C. F. A. Voysey

sion which the particular business wishes to convey. The smaller window, well-proportioned and properly framed, has an air of exclusiveness very necessary to the firm that wishes to please a select clientèle. The perfume shop of Messrs. Atkinson in Bond Street provides a notable example of what the architect can do in this respect.

Liberty's new building in Argyle Place is another illustration on a larger scale. That a much greater appeal is made by not exposing everything the shop contains, but rather hinting at the con-

which may be applied to counteract the effect of undue weight upon the plate-glass front. An excellent solution is afforded by setting back the window from the general frontage. While admitting the loss of four or five feet of valuable site, the advantages to the business are obvious; the public are tacitly invited to come within the line of the building itself; they are in a position where they have leisure to examine the display without fear of jostling by passing crowds. Messrs. Heal and Sons' store in Tottenham Court Road is one of the few places in which this plan has been adopted.



MORRY'S PERFUME SHOP, LONDON. Architects, Mewés & Davis



LIBERTY & CO, BOULEVARD DES CAPUCINES, PARIS

The use of the deep, flat architrave or frame as a surround enhances enormously the value of the window as a place wherein to expose fine goods. A frame has the advantage of cutting off discordant surroundings, and immediately gives the window dresser that opportunity to compose his

the rich silks displayed within. The architecture does not clash with the wares exhibited, and the flat surface treatment permits a very shallow recessing of the glass, so that the best possible light is admitted.

Where it is desired to treat a shop front as a



THE WOLSELEY BUILDING, LONDON. Architect, W. Curtis Green, A.R.A.

wares which is so necessary to accentuate their value and add to their effectiveness.

The distinctive simplicity of Liberty's shop front in the Boulevards des Italiens, Paris, is another interpretation of the same principle. Large plain surfaces of veined marble relieved with a coat of arms, the company's name and a bead ornament in bronze, form an admirable frame for

single unit the full effectiveness will be obtained only when the design is kept small enough to be embraced by the angle of vision at one time. This applies, of course, to frontages of small dimensions.

The use of colour, not only in the exterior surround of the window but also as a background for the goods, is one that should make an increasing appeal to the designer.

With regard to artificial lighting, the general tendency is towards a softly-toned light of sufficient quantity either evenly distributed or concentrated on articles of outstanding interest. Whatever light is required outside the shop should be so treated as to be in keeping with the design. Exterior lighting is falling into disfavour, and the powerful arc lamps of twenty years ago have practically disappeared. All that is really necessary is that the name of the shopkeeper shall be sufficiently apparent, and it is now becoming the custom to place an illuminated hanging sign within the window itself.

In fact, the shop front, in addition to being a show window, is becoming one of the devices of

lighting which creates unusual contrasts of light and shade. In the interests of publicity this is a very effective method of primarily introducing the building itself to the public notice. An example of this can be seen in Mr. Curtis Green's Wolseley Building in Piccadilly and at "Selfridge's," Oxford Street.

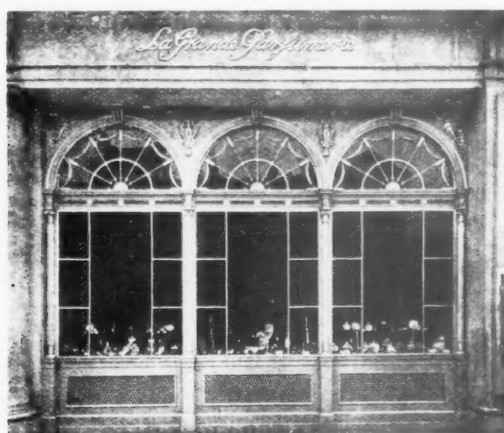
While on the subject of publicity it is perhaps worth while to mention the somewhat objectionable scintillating signs which are at the moment enjoying a tremendous popularity, and have even been adopted for the fascia of shop fronts. Perhaps the least offensive of modern electric signs is the "Neon tube," the colour and construction of which will no doubt be modified in time. Mercury Vapour tubes are occasionally to be seen, but they give a curious effect to the complexion, and women who are aware of this generally contrive to avoid the shops which use them.

The use of effective lettering has recently been acknowledged as a commercial necessity, and as such the value of expert advice is recognised. The well-known incised gilt letters are gradually being replaced by characters of careful design and proportion, properly spaced and harmonising with the general decorative treatment.

An extreme and original example is that at the Banque Populaire in Paris, where a profuse scheme of simple lettering has been adopted.

With regard to the construction of shop fronts, it may be remarked that bent windows are no longer the fashion. Not only are they expensive, but they produce distorted reflections which are very objectionable, especially where concave glass is used.

Much thought has been given to the question of avoiding condensation upon the inside of the shop window. Theoretically the problem is quite easy of solution, for it is only necessary to keep the temperature equal on both sides of the glass. To do this, however, the external air must be allowed to circulate freely, and the difficulty of admitting it evenly, at the same time excluding dust, is one that is not easily overcome. The most effective method yet evolved is to provide a film of hot air on the inside surface of the glass by means of a coil of heating pipes concealed in the window board extending across the whole front and to a depth of about 12 inches. This system has the effect of drying the air locally and is very efficient in preventing condensation.



LA GRANDE PARFUMERIE, OXFORD STREET
Architects, Mewés & Davis, F.F.R.I.B.A.

modern salesmanship, and is itself now often used as a means of publicity.

The growing practice of illuminating the display many hours after the premises are closed constitutes an advertisement of fundamental importance. The appearance of the goods displayed is greatly enhanced by cleverly concealed and well-placed artificial illumination, and many customers are no doubt attracted by this means. Particularly is this the case in regard to shops which specialise in feminine commodities, and in this connection it may be mentioned that light and colour have the same irresistible fascination for women as the candle has for the moth.

Another modern innovation is the use of flood

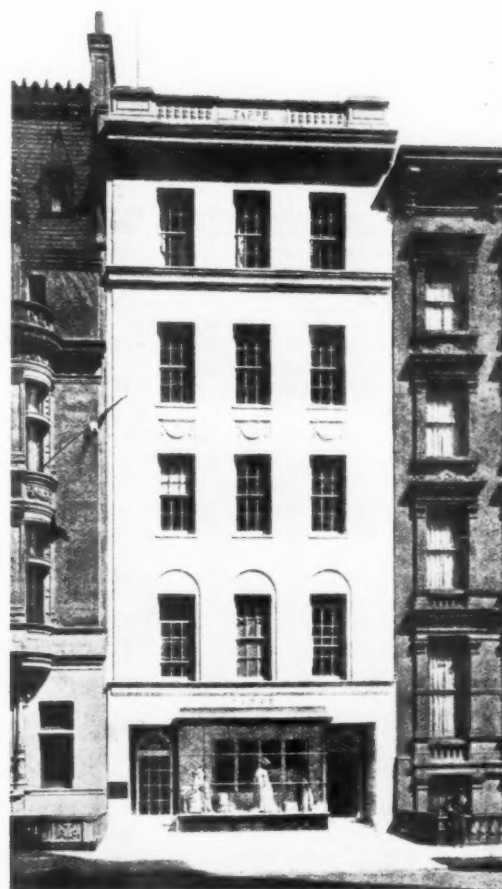


MODERN EXAMPLE, PARIS

The level of shop floors should be made about the same as that of the pavement, thus making it easy for prospective customers to enter the merchants' places of business. This may seem to be but a detail, yet it is important, for the buying public, to quite an extent, follows the line of least resistance, so that all steps or obstacles which might deter people from entering should be omitted.

MAC FISHERIES, BROMPTON ROAD
Architect, Vincent Harris, F.R.I.B.A.

FIFTH AVENUE, NEW YORK



MESSRS. TAPPE, FIFTH AVENUE, NEW YORK

The heights of window-floors should be made to conform to the kind of goods displayed. Furniture should be shown at nearly pavement level, while rings and articles of jewellery should be presented in about the position a person would naturally wear them. In fact, it might be adopted as a maxim that merchandise, to be displayed to the best advantage, must be shown as nearly as possible in the position in which it is intended to be used.

In the limited time at my disposal it is, of course, impossible to enlarge on the few general principles which I have very briefly stated. It is gratifying to note that this interesting branch of civic architecture is receiving the consideration it deserves, and that those engaged in merchandise are alive to the importance of a problem so long neglected.

In conclusion, I will quote Mr. Marshal Field, an American authority on the subject, who says that "Goods well displayed are half sold."

Discussion

(THE PRESIDENT, MR. J. ALFRED GOTCH, IN THE CHAIR)

Captain IVOR STEWART-LIBERTY, M.C.: When I was asked to come here and move this vote of thanks, I thought I should hear a technical and professional lecture by an architect on shops and that it would be very easy for me, as a shopkeeper, to find plenty of holes in it. But, I regret to say, I am very disappointed, because I agree with every word Mr. Davis has said.

I agree that these huge buildings, resting their colossal weight on a sea of glass, are monstrous things; but I am also rather amused and interested to hear that Mr. Davis excuses—I will not say himself, but excuses architects in general—from that crime and puts it down to the shopkeeper. I am afraid I always blamed the architect. The shop window question is an extremely difficult one, and I have come to the conclusion, rightly or wrongly, that the more educated your customers are and the better taste they have, the less need there is for a shop window at all. If you go to the other extreme and cater for the uneducated population, the only answer seems to be an ocean of glass. But you architects—and I take it that all you here are architects or budding architects—must remember that a shop window is an advertisement; there is no getting away from that. And this is especially true in the case of small articles. If you put them in the window one week they will sell, and if you take them out the next week they will not sell. The buyers keep you well informed on that subject.

There was one point which Mr. Davis made that pleased me very much, and that was what he said about showing goods at the right height. If you show a ring or a necklace, it should be at body height, and if you show furniture it should be at the floor level. I object to this plague of Renaissance buildings because, although I do not feel very old, I am getting on, and I do remember when the buildings of Peter Robinson, Dickens and Jones, Robinson and Cleaver, Swears and

Wells, and others had each their distinctive personality, and you knew when you were in Peter Robinson's or when you were in Swears and Wells. To-day, I never know which shop I am in! You must excuse my mentioning Liberty's, because it is the only shop I know anything about, and I do not know as much about that as I ought to. It may interest you to know that before the war we discussed for a long time whether we should build in Argyll Place. The idea then was to build in the Renaissance style, in conformity with the shop in Regent Street. The question which affected the Board was whether by building in Argyll Place we should lose trade, and this is a good opportunity for me, on behalf of the Board of Liberty and Co., to take off my hat to Debenham and Freebody. Messrs. Debenham and Freebody moved, a long time ago, to Wigmore Street, where they put up an admirable shop, with admirable windows, and they have turned a side street into a main shopping thoroughfare. It was largely owing to their example that we had the courage to go into Argyll Place. Then one of our directors said, "Let us put up a building in the style of the sixteenth century." But we got frightened again on the window question. We said, "If we put up a shop in the style of the sixteenth century, we must have it right, we must have leaded windows, otherwise, especially when it is opened, the architects and the R.I.B.A. will roar with laughter!" As a matter of fact, architects have been rather critical. For a long time the Board wondered whether they should put in leaded lights, and we compromised by putting them in, and at the same time we put £1,000 on one side, and said, "If they do not do, the windows are not very big and we will put in plate glass." I hope we shall never have to put in plate glass and that the £1,000 will be given to me as a bonus. There was a delegation of American Press people over here in the summer, and I asked one American lady how

she liked these leaded lights, and she said she thought they were "real cute," but she felt shy of looking into them, as she felt that she was looking into a private house.

There is one little point which possibly may interest you; it has nothing to do with the architectural features of shop windows, but it might help in the future. Many of us in London are rebuilding, and we have had to put up temporary shop windows. I do not know why, but those windows are very valuable. I think the secret is that you have a real frame, and the back of the window is very close to the glass, and the people have to look at the contents. Mr. Davis said something to the effect that a shop window should be a frame, and with that I agreed. He also spoke about the introduction of colour. The shopkeeper has got to be very careful about putting colour on his shop window, because he does not have the same goods in his window every day, and if you make a frame with too much colour, you are in danger of detracting from the goods displayed. I do not think it is safe to play with colour. In the background of the window you cannot play with colour either; you must go in for safety and have either a dark or a light scheme.

There is one personal thing I want to say. Mr. Davis showed us on the screen the front of our shop in Paris. I am grateful to him for mentioning that shop, because, rightly or wrongly, I love that frontage. It is a very small shop in a very important city. I should also like to say that the last two pictures you saw on the screen, of the interesting new shop at the corner of Regent Street and Conduit Street, Mornay's, are of Mr. Davis's work.

And now you had better hear some technical criticisms instead of remarks from a poor "stall-keeper," as I think Mr. Davis calls me, and it is with very great pleasure I propose a hearty vote of thanks to him for his very interesting and useful paper on shop windows.

Mr. A. S. GAYE (Commissioner of Woods and Forests): It is a very great pleasure to me to be allowed to second a vote of thanks to Mr. Davis for his most interesting and most instructive paper. He has chosen for his subject, I should think, one of the most difficult problems that modern architects have to face. It is a much more difficult problem now, I am sure, than it was when competition between shopkeepers was less keen than it is to-day. Now, when an architect has to design a shop front, he must sometimes be very hard put to it to reconcile his duty to his art and his duty to his client. Because it is well known, I think, to everybody who has to deal with shop property, that every shopkeeper wants to be different from his neighbour. Perhaps that is the best sort of advertisement, or if it is not the best sort, it is the cheapest sort. The best sort of

advertisement, presumably, is advertising in the Press. That, however, is enormously expensive, and is becoming more so. Therefore, the average shopkeeper does not care tuppence what his shop front looks like so long as it attracts attention. I am not sure that he is not defeating his own object; but when the pitiful shopkeepers who earn their few ha'pence in Regent Street come to appeal to me to be allowed to decorate their windows with some more distinctive advertisement in their efforts to make both ends meet, I sometimes doubt whether really they would not achieve their object by greater simplicity, and by taking the advice of their architect, rather than by following their own not very highly developed ideas of what will attract the man in the street. And it is very encouraging to hear such a paper as we have had this evening, which shows a very sympathetic understanding of the better shopkeeper's point of view; and also to hear the observations of Captain Stewart-Liberty, who shows a sympathetic understanding of the better architect's point of view. I cannot help wishing that the architects and the shopkeepers had come together at an earlier stage.

It was rather significant that in Mr. Davis's paper, and the admirable photographs with which he illustrated it, all the best, or most of the best, examples were more than a hundred years old. Then there was a long gap of some 80 years, or about that, during which practically nothing was produced which it was worth Mr. Davis's while to reproduce. During that period the shopkeepers' taste went down and down. It is true that latterly there has been an improvement, and I confess that though I came here as a sceptic, almost as a pessimist, I am enormously encouraged by the illustrations of recent work which have been shown to us this evening. I hope Mr. Davis and his brother architects, and Captain Stewart-Liberty and his brother shopkeepers, will seriously put their heads together and see that we do not descend again to the sort of thing which was produced in the latter part of the last century.

If I may venture to make a suggestion to you, Mr. President—it is very likely that it will be impossible to carry it out—it is that I should be glad if Mr. Davis could read his paper again before an audience of shopkeepers, instead of before an audience of architects. I think it would be a most helpful thing. I read, in an architectural paper the other day, a report of an address given before—I forget the name of the Association, but it may have been the Architectural Association—and in that address the President said that nothing before had ever been seen like the new Regent Street, and he trusted it would never be seen again. But, he said, some of the shop fronts were very good. I am glad to know that.

It is not for me to defend the new Regent Street, and I will not attempt to do it. After all, Regent Street, and every building in it, was designed by an architect; and if one architect says that another architect has done bad work, that architect who is said to have done bad work will probably say that his critic has also done bad work. That is the best of architecture. So long as you observe the few fundamental axioms, which are as fixed as the laws of the Medes and Persians, you can produce anything you like, and you will find somebody who will support your point of view. And though I know that the new Regent Street has many critics, it also has some friends. I am neither one nor the other—I am independent; but it will have more friends if Mr. Davis and those who have been impressed by his views this evening will design the shop fronts in those parts of the street which are not yet finished.

I have great pleasure in seconding this vote of thanks.

Mr. K. A. BRADEN [A]: The shopkeeper must be brought to realise that the shop window is the greatest advertising medium at his disposal, and if Mr. Davis will accept the suggestion of the speaker from the Office of Woods and Forests, that he should lecture before shopkeepers, I am sure it would have a good effect. But an easier way would be to have the lecture published in certain trade journals, which would, I think, be thrown open to him if he would send his lecture to them.

The importance of the shop front is enormous. It is at the eye-level which is of the utmost importance in most streets. More sympathy is needed between the architect and his shopkeeping client. Both hold their strong points of view. Captain Stewart-Liberty has been through the architectural mill, and has probably been won over, but there are many less sympathetic would-be clients, and those people are rather afraid of the architect. They say, "He is going to reduce my shop window space"; and in many cases I do not think the architect is sufficiently keenly alive to the varying requirements of the different trades. Many of them have been pointed out by Mr. Davis, the different heights of the window bottoms where the goods are displayed, etc. Very few architects know about these things, and I think they should make it their business to learn. Regent Street, without the Woods and Forests, would probably be a street of competitive self-assertiveness. There is always that risk, and it is only by the restraining hand of the Office of Woods and Forests that we have the small sense of uniformity that exists there now. We had to have a new Regent Street, and it might have been a much worse street than it is. The plea of the shopkeeper for his display is that, if the average member of the public does not see what he wants

in the window, then instead of being a prospective purchaser, like Mr. Pim, he passes by.

Mr. PERCY J. WALDRAM [*Licentiate*]: May I draw attention to one point, which, because it is so obvious, is liable to be overlooked? Goods displayed in shop windows are put there to be seen; but sometimes they are almost invisible on account of reflections, either in daylight or by artificial light. It is merely the familiar problem of picture gallery lighting. The shop front closely resembles a glazed picture, and is subject to the same two types of distracting reflections to which we are accustomed in badly designed picture galleries. It is also amenable to the same cures.

There is first the specular reflection from the sky. Walking down Bond Street, for instance, on any fine day in summer, one passes shop after shop in which everything is invisible in the glare and glitter of reflected sky. In all cases where the sky, visible above the premises opposite to any shop window, comes within the plane of reflection of the window glass, as viewed from the eye level at the pavement, then even on dull days a bright image of that sky will appear in the glass; forcing itself upon the eyes of the onlooker, distracting attention from the goods displayed, which are by comparison poorly lit, and even reducing one's capacity to see them at all. When that sky is occupied by sun or by sunny clouds, the reflection can be not only distracting, but actually painful. The cure is obvious. A very simple geometrical projection of the street and its buildings would show the designer just how much glass he can use for display, and how much he must cut off, either by the height of his fascia, or, if necessary, by a bold transome, or a show case top. Then there are the reflected images of the spectator, of passers by, of moving vehicles, and of bright shop fronts across the road. These cannot be dodged by keeping the glass within the plane of no reflection, but they can be mitigated very materially by common sense and a due appreciation of the conditions which cause them. Smooth glass reflects only some 4 per cent. or 5 per cent. of the light incident upon it, but when the background behind that glass is dark, then bright objects can be seen by reflection from it more clearly and more insistently than darker objects behind it.

Obviously, therefore, the interiors of shop windows should be kept as light as possible. A shallow depth assists this by day, because daylight illumination falls off very rapidly indeed, even at comparatively short distances behind the glass; whereas the spectator and roadway are exposed to the light from a large area of sky which is invisible from inside the shop front.

Under artificial light, reflections from street lamps, passing vehicles, and from brightly lit shop fronts across the road are also sources of reflection which cannot be

escaped by the means which can be adopted to keep the artificial light sources of picture galleries outside the optical plane of specular reflection. But the inevitable effect of such sources of reflection in shop windows can also be mitigated by keeping the interior of the shop front light. There is at any rate no need to accentuate such reflections by filling in the back and sides of the showcase with polished hardwood panelling, forming a secondary mirror across which the reflections from lights of passing vehicles travel like a moving sign, without any of the alleged advertising value of that product of modern publicity.

A shallow depth of shop front also helps the lighting engineer, who can secure in it a higher illumination than is possible with a deep cavernous showcase.

Ample height certainly assists the daylight illumination of a shop front materially, but shallow depth helps it much more. It is difficult to light a high shop front artificially if the full height of glass be used for display. But the advertising value of display in the upper parts of high shop fronts would appear to be comparatively small and the glass there, like high pictures in a picture gallery, is particularly liable to sky reflections.

The best results would appear to be obtained by keeping the main fascia fairly high, but shutting off the upper portion of the glass by a transome and the ceiling of the showcase, leaving the upper glass clear and available to throw at least some daylight on to the shop.

The average shopkeeper—who is not always the easiest person in the world to convince—is generally averse to any mixture of daylight and artificial light inside his shop; but the undesirability of any mixture of daylight and artificial light would appear to be more often talked about than felt. There is something which is unnatural and decidedly the reverse of attractive in any shop which is wholly lit by artificial light during the day—and daylight is certainly very desirable for the sale of fabrics and is practically essential for fruit, flowers, meat and foodstuffs generally.

I would venture to put forward a plea for closer co-operation between the architect and the lighting engineer at the earliest stages of the design of any shop front. When the lighting engineer is given the task of lighting a shop front which is already decided upon or built, he is often prevented by structural features which might easily have been varied from giving the best or even good results. He might even be given one of those wonderful fronts which were shown on the screen, with island showcases and curved arcades. My business takes me into many towns in England and I am always on the look-out for good and bad examples of lighting. But I have never yet seen one of those curved arcades into which it is not almost painful to look by night and very often by day. In them it is almost impossible, at least with modern illuminants, to avoid a

direct view of several unshaded light sources against a dark background, which is the very essence of harmful glare.

We have in London one example of very pleasing shop window lighting in which I am informed the architect and the lighting engineer worked together from the first. I refer to the new fronts of the Army and Navy Stores in Victoria Street. I have no interest in this building beyond passing it daily and always admiring it. The fronts are kept straight—they are deep enough for effective display, but not too deep. The display height is kept just sufficiently low by the showcase top to avoid sky reflections, but is not too low to admit ample daylight. The goods also are generally seen against backgrounds of light wood panelling painted with a flat finish. The artificial lighting is very liberal, but any sensation of glaring contrast with a dark street is toned down by soft flood lighting.

There may be shop fronts which are more pleasing in every way as regards lighting, but I at least have not yet found them.

Mr. GILBERT H. JENKINS [F.] : The seconder of the motion of thanks referred to the difficulty of architects serving their art and their client, as though the two were antagonistic, but the real difficulty is to make the client realise that he only obtains the best services from his architect by allowing him to serve his art in the best way. Mr. Davis incidentally referred to the arcade front, and the last speaker also talked about the difficulty of lighting it so that the goods could be displayed in the window. There is one greater difficulty still, and that is that, in an arcade front of any depth, the lighting of the shop—if the building above is a deep building—is so diminished, that practically all day long the shop is either very gloomy, or it has to be artificially lighted; and a shop artificially lighted in the summer does not give one the impression of welcome which is given by a shop naturally lighted. Apparently, nowadays, the tendency is to raise the height of the shop fronts, so that the scale in the street seems to be going up and up, and it is a question as to whether it would not be beneficial if the Commission of Fine Arts, or some such other body, were to lay down regulations which should make the scale of a street co-ordinated so that the competition one sees—which is destructive of the good effect, taking the street as a whole—could be avoided. We are accustomed to have the lines of frontage, the height of the whole building and other kindred matters regulated, and on the whole it is all to the good. And if rules were laid down as to the height of shop fronts, class of material and lettering to be used, and the general lines of the elevation, taking the whole block of buildings as the unit, the standard of street architecture would be raised.

There is another point, one which Mr. Davis has not referred to, and that is the question of the base-

ment. Because of the higher ground rents, nearly all London shops are tending to become three-floored. There is the shop proper on the ground floor, with additional showroom space on the basement and first floors.

The new use of the basement materially affects the design of the shop stallboard and pavement lights; to provide openings in the stallboard for ventilating the basement is one of the most difficult problems in shop front design, and the width and pattern of the pavement lights help to make or mar the effect of the front when finished.

In his illustrations we had one shop where the front was designed for two floors, but it is to be hoped that this type of front will not be extensively adopted, because it ruins the scale of the street and also of the building of which it forms a part.

With regard to materials, there now seems to be a craze for bronze shop windows, lettering and ornament in London. No doubt it is a suitable material, because it tones down a beautiful colour, is easy to keep clean, and is very durable, its durability being measured in centuries rather than years. A Regent Street shop-keeper recently stated that it was better for the shop-keeper if the front and the fittings of the shop could be entirely changed every decade. He said that a new shop—merely because it was new—attracted a crowd of new customers, who come out of curiosity. Such a statement might apply to a business where the customers are passers-by, but in a great, old-established business it would be advantageous to have a finely designed permanent front, although, in a type of thoroughfare such as Regent Street and Oxford Street, the point of view of changing the front seems to have some merit. Such a front as Mr. Davis's admirable perfume shop in Regent Street, with its painted woodwork, would be simple to alter, as it would only be necessary to change the colour scheme; it would be impossible to change the bronze front, on account of the expense.

Another point affecting the design of shop fronts, which has not been referred to, is the treatment of the back of the window. In many of the shops hardly sufficient care seems to have been taken over that. Mr. Davis showed a very interesting diagram where the cases were slid out to be redressed and the window to be cleaned; but, with the number of robberies we have had lately of the "snatch" type, where jewellers' windows have been broken and trays of jewels snatched away, it might be an advantage if Triplex glass were adopted, and so the double window would be done away with: the only difficulty is that the panes can only be made of a certain size. Some architects would consider this difficulty a positive advantage, as at least one type of shop would be saved from having a huge expanse of plate glass.

Professor A. E. RICHARDSON [*F.*]: It is scarcely possible to add anything to the admirable information which Mr. Arthur Davis has given to us. I should like, however, to lay a wreath upon the antique shop fronts which have passed, particularly some of those shown by the lecturer. There was one for Bells, the chemists, which used to stand in Oxford Street. This was designed by George Maddox, who specialised in shops a century since. It was Maddox who taught Decimus Burton and Cockerell to draw. He built some of the shops in Lamb's Conduit Street and the chemist's shop in Byng Place. The shop fronts at Woburn in Bedfordshire, which for originality are unique, were also designed by Maddox. We all look on these survivals of past custom and enjoy them, but while we delight in all that the past can show we have learnt to project our thoughts into the future.

To-day there is a suggestion that trading interests should be zoned. This theory is a very old one, in fact it existed from mediæval times to the late eighteenth century. I should like to carry the thoughts of the meeting to the rebuilding of New Oxford Street, a property of the Crown, which will shortly have to be reconstructed. Here is an opportunity to project an imaginative design. The drapery interest is an important one, and in the case of New Oxford Street a real opportunity exists for a daring proposal.

The idea is to design a number of buildings on the block principle, having three tiers of shops. There would be shops on the level of the pavement, shops again at the first floor level and shops within a loggia at the top, which could be enclosed during bad weather. May I remind you that the Uffizi Gallery at Florence, particularly the top storey, suggested the idea. The separate blocks would be connected across the streets by means of flying bridges of light decorative character. There would result a triplication of the footways with moving pavements and all sorts of modern devices. The ordinary pedestrian would be able to walk in comfort for half a mile under cover and would soon get into the habit of taking the lift to the higher level.

This idea would only apply to certain streets. The plans have been fully worked out by some gentlemen in this room and have aroused considerable interest among leaders of commerce. We have in Chester the admirable examples of the Rows. Why should there not be a modern application of the idea on a bigger scale? There is need to-day for comprehensive design in the treatment of street frontages—some return to that admirable quality of monotony and uniformity which need not consist of the repetition of orders and pilasters. Modern architecture, in so far as civics is concerned, is bound to respond to the development of imaginative ideas.

Mr. H. V. LANCHESTER [F.] : I would like to add my tribute to the exceedingly interesting paper which Mr. Davis has given us. I regard this as a most important subject, and I felt so twelve years ago, when I had the opportunity of reading a paper on the same subject as Mr. Davis's, and an eminent relative of Captain Stewart-Liberty's was in the chair.

There are one or two points in Mr. Davis's paper which I would like to take up. One was about Chester. I have heard another theory about Chester which does not agree with his as to the inception of the Rows. This was that the Roman city fell into ruin, and the debris filled a height of 7 feet. They kept the roads clear because they were main thoroughfares. And when the people came to re-establish the town they built their little houses on top of the debris ; they were not very heavy, consisting mostly of wood. Then things got busier, and they built sheds at the edge of the road, and in mediæval times they brought the houses forward over the stalls on the side of the road, and established these levels owing to the fact that the height of the ground floor was fixed when they began to rebuild 7 or 8 feet above the original road level. That is the solution which has been given me for the growth of the Chester Rows.

There is one little aspect of the case which Mr. Davis has not yet touched on, but it came to my mind forcibly when looking at the splendid series of illustrations he gave us. It is the varied solution of the difficulty of an open front with solid building over it. There was the frank negation of the demand to have the building supported. We are able to carry a building on very slight supports, and I remember a story in that connection which an eminent member of this Institute told me. He said he wanted to get some supports which would suggest carrying the façade, but they were reduced and reduced until, at last, he got nothing left, and, referring to the client, he said, "I hope you will have those shirt-fronts nicely starched." "Why?" "Because they are all that you have left me to carry the front of my building on."

It seems to me that there are four ways in which you can attempt a solution of that problem. There is the plain open front with the effect of a very substantial beam treatment over ; and that covers the shop front of the recessed arcade, because this is practically the equivalent of the plate-glass front. I have noticed it rather cleverly solved in one or two cases in America, where instead of the ordinary beam treatment the whole of the first floor is given the character of a beam with the voids latticed, which suggests strength, and thus the whole of the first floor is carrying the building over. Another is that which bases itself more on the mediæval treatment, where the shop front should come forward from the plane of the main building, so that you can imagine the back of the shallow

shop front is carrying the building over, and it continues downward, apparently behind the front. There is the third solution of the arcade, treating the shop with continuous arches like an old market place. And there is another one, which has been widely adopted on the Continent, where the whole front of the building is the shop front. It might have been very appropriate in Regent Street. I think there is much too much Portland stone in Regent Street. Many of the premises could have been appropriately treated in bronze with strengthening piers from top to bottom. In several of the Continental capitals there are some beautiful fronts which are treated in four or five storeys without any added substance from the ground floor upwards. You need not have these entirely glazed because that means a difficulty about warming, etc.

I feel there is much hope that in the future we shall get a treatment of the whole front where the building is entirely a shop, rather than further attempts to add heavy chunks, as in Selfridge's columns, to what is naturally a light structure suitable for business purposes.

Mr. E. STANLEY HALL [F.] : Now that Captain Stewart-Liberty has gone, I think I may say I know who ought to have that thousand pounds ! I cannot speak too highly of my clients in my case, because they have been the exception to all the rules of shopkeepers ; they have been most anxious to help in every way.

There is one thing I should like to make a plea for. Mr. Davis mentioned the invariable use of hanging signs in the old days. In nearly all the cases in which they have been used in London they have been most decorative, and, for a stranger, most helpful. There are one or two in the City still, which are very attractive—there is the Grasshopper, at Martin's Bank, for instance. Hanging signs might still lend much interest and colour to streets.

And there is the question of artificial lighting which Mr. Percy Waldram touched on. The trouble there is, as he said, exactly as in picture galleries—the high light on the spectator and the shaded light on the object looked at. The secret is to keep the background of the shop front light rather than dark. So many people are anxious to use walnut and mahogany. But where there are light shop backs they get over the real difficulty in summer caused by a white street and a more or less white series of buildings opposite. You cannot compete by artificial light with strong sunlight in summer.

Another point is that all these shops lighted at night-time are on the clock-work principle ; before the people go home, they set the mechanism to put out the lights at a certain hour.

I support heartily the vote of thanks for the paper and the charming illustrations.

Mr. JOHN MURRAY [F.]: I do not know that I can add anything useful to what has been said, but I would like to support the vote of thanks to Mr. Davis for his very interesting and instructive paper.

There are two or three points I would like to give my experience upon from a practical and professional point of view, which, after all, is the most interesting to us architects who have to design these shop fronts. I have endeavoured to obtain from tradesmen of considerable distinction some estimate of what they would lose if they granted to an architect a few inches more of brick pier or stone pier to support their establishments, and I have never been able to get their estimates. I think this is due to the fact that the decimal point would be so small they would not have time to tell me. I think the question of a large sheet of plate glass is a matter of pounds, shillings and pence in the estimation of the tradesman, and I do not think there is much in it. If we obtained a little more support for our buildings I do not think the tradesman would suffer in his dividends.

There is a point about the designing of the modern shop which I do not think has been mentioned, and it is likely to be the most satisfactory one in the future. It is the form where the shop blind practically rules the design. It is becoming customary to fix the shop blind about three feet below the top of the shop front. That allows plenty of room for the display of goods and leaves the shop front above the blind clear for lighting the back of the shop and for ventilating. It can be framed up and small squares of glass and open ventilators can be fixed. That method dominates the whole design of the shop front, and I think there is a large future for it.

The question of colour in the shop surrounds has been mentioned, and it is very important. I do not agree with the use of dark woods and similar materials. I think a lighter shop front inside displays the colours of the goods much better.

The question of metal frames is one of the most important points now being developed, and the bronze bars are more satisfactory for the display of goods as well as being more economical for the shopkeeper to keep clean and polished.

Some of our tradesmen prefer to fix shop fronts of some old type—a type which is sometimes very in-artistic. But they will have these because they look upon them as trade-marks, and they attach a certain amount of goodwill to them. That may be so, but I think they would be better advised to have a new modern front which is artistic, and even architectural. Very often in that respect the tradesman and the architect take the line of least resistance, and allow a shop front to be imported from some past age, although it is anything but artistic.

I think the best method of designing the ordinary

small shop of say 20 feet frontage in order to meet the necessities of the building is to frame it up like the frame of a picture. It is impossible in many cases to design shop fronts in harmony with the design of the building. Buildings are designed and shop fronts are an afterthought. The shopfitter and the architect have then to fix the shop front to the building already designed. I have never seen two shop fronts belonging to two different tradesmen which are exactly alike. Every tradesman wants a different kind of shop for the display in his window of similar goods. One will want a sheet of glass 20 ft. wide whereas the other will want a similar area cut into three or four sections in order to display three or four kinds of goods, and it is impossible then to get the vertical lines of the shop front in harmony with the architecture of the upper part of the building. The result is that the architect must be allowed a fairly free hand in the designing of his shop front, and there are only two ways of doing it—either to have a horizontal lintel of good depth over the shop or to frame it up like a picture frame, the frame being of ample dimensions.

Mr. A. H. MOBERLY [F.]: May I put in a plea for the abused shopkeeper—abused because he is anxious to have plate glass. We have been told that he is not considering the building above, and that to gain a few extra shillings a year he is ruining the building by refusing to give it sufficient support. Professor Richardson and another speaker have suggested by their remarks that it is not necessarily the shopkeeper who is to blame. It is really we architects who are to blame for the rigidity of our ideas. Any new departure in architecture must be begun slowly, and until a tradition has been built up it is not likely to be very successful. Although it has been suggested—quite correctly—that there are certain types of goods which can be displayed better if there are only small places in which they are shown, it is clear that many shopkeepers feel that their trade depends on a very large amount of plate glass. In most types of building, if a client requires certain practical things we consider it our job as architects to solve the problem and give the client what he requires, at the same time producing a satisfactory building. But we are so far obsessed by the idea that a building should be a very solid-looking structure that even when the main object of a building is the shop at the bottom, for which the shopkeeper wants the maximum possible area of glass, we tell him that he is ruining our work, and that we as artists wish to make a building which is fine architecturally, regardless of the purpose for which it was designed. It is a very difficult problem, and I do not think anyone has yet solved it, or that it will be solved in a single generation. But I think the direction in which we should look for a solution—as has been already hinted at

by another speaker—is that ultimately streets which exist primarily for their shops should not consist of Portland stone, but should be of a light character in keeping with the bottom storey, rather than that we should demand that the shopkeeper should make his bottom storey conform with our pre-conceived design for the top of the building.

The vote was carried by acclamation.

Mr. DAVIS, in reply, said: As it is late I will not attempt to answer all the points which have been mentioned in the very interesting discussion we have had. It was, I think, Mr. Gaye who said I had selected a difficult problem to deal with, but I did not choose it—it was selected for me, and I realise that there is much to be said which I have omitted. The subject comprises a very wide field, and it is impossible, in the time at one's disposal, to cover the whole ground.

I have had to omit reference to departmental stores, but a very interesting paper on that subject has been read fairly recently before the Institute by Mr. H.

Austen Hall,* who dealt with that problem very thoroughly.

With regard to Captain Ivor Stewart-Liberty's remarks, I think we should be very grateful to him for having come here and given us the views of a large store-owner and merchant on this question. He has shown what a courageous business man can do in the way of revolution. I think the premises he has erected are admired by us all, and I sincerely hope he will get the bonus, and divides it, "50 50," with Mr. Hall.

Reference has been made to my omission of the treatment of the back of the shop window; but the title of my paper was "Shop Fronts and Their Treatment," and, not knowing much about the backs, I thought it permissible to omit reference to them.

I think we have had a very interesting debate to-night, and, of course, the main purpose of my paper was to provoke discussion. I am very grateful to you all for the patience you have shown in listening to my paper, and I thank you for the kind way in which you have received it.

The Troubles of the Building Trade

BY MAURICE E. WEBB, D.S.O. [F.].

"FOOLS step in where angels fear to tread," but at the request of the Editor I am venturing, with some hesitation, to tread on the slippery slope which leads to controversy and perhaps even to disillusionment. I do it only on the understanding that these are personal opinions, and opinions that can in no way commit our JOURNAL, our Institute, or our members to any views contained in this brief article.

If the subject is ventilated, discussed, and freed from the smoke-screen of secret intrigues and diplomacy, some good may result. That is the one hope. There is another proverb which is applicable to this case, and that is: "Outsiders see most of the game." In all disputes and troubles between masters and men in the building trade, architects are unfortunately outsiders, but they do hear one way and another in spite of this disability some of the inside difficulties of both sides.

Now I claim, at the expense of being called egotistical, to have had some experience of another side, as well as the purely professional one; and in writing these notes, I do so in the sure knowledge that hundreds of the younger generation of architects have shared the same curious experience. On the outbreak of war we left our professional pursuit of architecture, where we had been accustomed to a very happy condition of affairs. Builders signed contracts and carried them out according to plan, and with little difficulty in respect to their labour. We got to know

the men working on the job; we knew their foremen and the senior hands as well; there was no trouble, no difficulty. An occasional strike—a slight whisper in the breeze; spells of unemployment; a firm hand by the masters; and back to work by the men—a little sullen, but back to work. We didn't think enough perhaps, or we thought these little grumbles were inevitable in every walk of life.

Then came the war. Hundreds of us joined the Forces in every kind of capacity, and many of us served as privates, N.C.O.'s and officers, and during that service heard many things which we should never have heard otherwise. In the ranks, in a squad, in a barrack dormitory with a bricklayer or a plumber among its occupants, opportunities arose for learning something of the conditions under which British workmen labour that probably would have been impossible without precisely such opportunities. In an officers' mess, when a master builder happens to be a second lieutenant, secrets are divulged which throw a flood of light upon the conditions which govern his outlook upon the building trade. The result of these experiences has altered our outlook completely.

In the old days we were accustomed to the real master builder—the man who knew his trade, worked at it, loved it, and was satisfied with a reasonable profit. We were also accustomed to the real workman, who knew his job, loved it, and laid as many bricks

* See R.I.B.A. JOURNAL, 10 April, 1920.

as he could lay properly in a day; or floated, as the case may be, as many yards of plaster ceiling as he could float properly in the time at his disposal. Both sides were satisfied that each was an integral part of the business, and each depended on the other. The war unfortunately gave an impetus—it was inevitable, everyone will admit—to the replacement of the builder by the contractor on a large—perhaps too large—scale, a movement which had begun before the war.

There is a great difference between these two. The builder's object is to make a reasonable living for himself and his descendants by building generally good buildings. The building contractor too often makes money for his own and his descendants' benefit largely by exploiting—or shall I say financing?—the building trade.

The men, before the war, were quick to perceive the difference; and after the war they used it to set up the now so well-known ca'-canny attitude in self-defence. Each side thinks that the other is trying to get the better of it, and a trade which is centuries old is riven through and through with dissension and strife.

If ever there was a trade in which there should be no taking sides as between masters and men, it is surely the building trade; it does not depend, and never will, except to a comparative extent, in England, on machinery or modern inventions which the ignorant are apt to think will cut out labour and therefore get us out of all difficulties. It depends, and always will, on the goodwill of the man who lays the bricks, pours out the concrete, fixes the windows and doors, lays the floors, or makes the joints in the leaden pipes. Goodwill is the essence of the whole business and must, as far as I can see, always be so.

To revert to the war and its lessons: those of us who got to know the men who work with their hands—whether in the building trade or any other trade—know that they are capable of any heights when properly led. When we come back to civil life and see five years of continual strikes and troubles in the trade with which we are intimately concerned, we can only think that they are not being properly led now. There is and must be something wrong somewhere. Men of this spirit, who have proved their love of

country, do not strike and fight and sulk with their employers at home for nothing. What is wrong? That is the question.

In the building trade the whole trouble now seems to be a wrong spirit between master and men, fostered on one side by the ca'-canny methods of the men and stupid restrictive rules of the trade unions, and on the other by the brutal system of employment by the hour which the employers insist on adopting—entirely alien to that of the old master builders.

If it rains, if it snows, if it freezes, the outside men are sent away from their work without pay for the rest of the day at the behest of a foreman's whistle. We have seen this happen over and over again, as we have all since the war seen men idling at their work. If the employers will sit down with the men to evolve a solution of this difficulty, and devise some system whereby a craftsman can secure a reasonable continuity of employment, I believe the men will, in spite of the trade unions, give up their ca'-canny methods and will even encourage other men to join their trade. That they would not do so immediately after the war, when the ex-Service scheme was attempted, was because of a deeply felt grievance of the unfairness of their position, and very properly they did not wish to encourage anyone to join a trade which has to work under such unfair conditions.

If architects, as outsiders who know something of this tragic game and see most of it, could help, I am sure there would be no dearth of volunteers willing to assist in arriving at some solution of the troubles which beset the building trade. But masters and men are now full of their own difficulties, and so ridden with unions and rules on both sides that it seems there is no chance of outside help being invoked to try to find a way to peace.

Was the war in vain?

We as architects—and, indeed, members of the general public—can, it seems, do no more than express a pious hope that the difficulties will be overcome and wish to the building trade a speedy solution of its problems. At this Christmastide we do, I know, wish "On earth peace, goodwill towards men."

22 December 1924

The late Paul Waterhouse

Past President R.I.B.A.

BY SIR ASTON WEBB, G.C.V.O., R.A.

"PAUL WATERHOUSE." I am asked to write a few memorial lines of our late President as I knew him, though his architectural life and character have been already dealt with by others from many points of view far better than I can hope to do.

He was almost universally known as "Paul," a sure sign, I think, of confidence and affection.

I happened to be Hon. Secretary of the R.I.B.A. when Paul's father, Alfred Waterhouse, was President, and so got to know both father and son pretty well, and I feel happy to have lived to see both of them as Presidents of the Institute. In many ways they were alike, in many very different, but both had that essential quality of a great President, the gift of making themselves trusted in a rare degree, combined with an honest sense of independence and fair-mindedness.

The picture of each by two very distinguished painters, William Orchardson and Sir William Orpen, hang in our Institute rooms and will call back, it is hoped, to the coming generation ideals of professional honesty and conduct as well as the happy domestic graces of life.

Paul Waterhouse was probably comparatively little known and appreciated by the profession until he became President, probably on account of his modesty and the busy life he was leading, but when Sir John Simpson retired and it became necessary to find a successor capable of carrying on in those difficult times, all those who knew "Paul" well looked to him to fill the gap; but we found him from one reason and another somewhat reluctant to face the work—possibly he knew of the trouble which was to take him from us at last, but of this I know nothing.

I was asked to write and beg him seriously to consider standing as President; possibly others were asked to do the same. He replied in one of his charming letters (he was an ideal letter writer), saying in effect that he did not want to stand, but that if I told him I thought it was a duty he owed to the profession he would try and do it, and as we all know he finally accepted and quickly showed himself to be the right man in the right place.

As an old Etonian and Balliol man he brought many distinguished men to hear his addresses, full of wit and wisdom as they were, and I well remember in his first address, when he referred to some improvements that were proposed in what was then by courtesy called the meeting room, Lord Sumner, in his remarks, observed that the room certainly did remind him more of a coroner's court than anything else, a remark which I

always thought had something to do with its speedy removal.

As President, both in the Council room and in general meeting, his fairness, his clear cut common sense, his humour, and, if I may say so, his human kindness, carried everything before them and obstacles and difficulties that at one time seemed almost insupportable were found gradually to steal away.

He proved himself a great ambassador to the Allied Societies; he attended their banquets and spoke at them, so that the members of these Societies said openly: "Now we have a man at the head of the Institute who understands our needs, realises our difficulties, and has the desire and energy to remedy them," with the result that he has certainly left the profession in a stronger and more united position than it has ever been before.

The amalgamation of the Society of Architects with the Institute was another matter which much interested him and which must undoubtedly strengthen both bodies and the profession, though we must all regret he has not been spared to see the completion of this proposal, which it is hoped may be achieved in the beginning of 1925.

During his Presidency the relations with the R.A. were always most friendly and he at once became favourite speaker at the Royal Academy Club dinners, exactly suited as his speeches always were to the audience and the occasion.

He was chairman of the Committee of the London Society dealing with the South side of the Thames, a trustee of the Soane Museum, a member of the Athenæum and many other Societies and Clubs, from all of which he will be sorely missed.

The last time I saw him, a few days before his death, I met him in the hall of the Athenæum and he told me he had "been troubled with his heart, but not seriously, and by keeping a little quiet I shall be all right again"; but it was not to be.

In these few lines I have dealt with his life as President of the Institute almost wholly, but he was a many-sided man, both in and out of his profession, and a full description of him has yet to be written—perhaps I may have said something to show those who knew him not that may enable them to understand the great services he rendered in one department of his life.

He will be remembered as one who shirked no responsibility, upheld the highest traditions of his profession, and has left us all grateful for the fine example of "Paul Waterhouse."

BY J. ALFRED GOTCH (PRESIDENT).

IN Paul Waterhouse the architectural profession has lost one of its chief ornaments, and the public one of their most trusty guides in questions connected with architecture.

Waterhouse was a man of culture and a scholar, as well as a very busy and skilful architect. He was, moreover, distinguished as the master of an attractive literary style, and the same attractiveness marked his public utterances. We need go no farther back than to the occasion of his tribute to Wren, which all his hearers agreed was a masterpiece of restrained and unexaggerated eulogy. The solid common sense of his speeches was frequently illumined by flashes of wit or the lambent flame of humour. A man possessing this gift of charming speech, especially when he calls it in aid of sound doctrine, must always be a force to reckon with, and his gift stood Waterhouse in good stead during his tenure of the President's chair. No one who sat on the Council during his second year of office, when the course of deliberation did not always run smooth, could help admiring his tact, his courtesy, and his knack of solving a situation by a jesting remark.

The first time I saw him was many years ago, on

the occasion of a distribution of prizes at the Institute. I recall him as he walked up to receive his prize, boyish yet alert and debonair, meeting, with a smile of modest deprecation, the loud applause which was in part a tribute to him and in part to his eminent father. From that day on he continued to take advantage of his excellent start in the architectural race, and he passed the winning-post, as it were, when he succeeded to the Presidency of the Institute: an office, by the way, entailing much more arduous work than had fallen upon his father when occupying the same chair. That he should have lived but little more than twelve months after vacating that chair is indeed a tragedy, for he had the prospect before him of many years of useful work and honoured recognition.

The sudden manner of his going may be counted to him as a gain, despite a phrase in the Litany to the contrary; but to all others it was a grievous shock. We architects cannot view without a pang of keen regret the passing of one who, through his work, through his wide culture and his personal charm, shed lustre on our calling; and not often is it so forcibly borne in upon us that

"Death loves a shining mark, a signal blow."

BY ARTHUR KEEN (HON. SECRETARY).

I GLADLY accede to the request that I should write a few words about Paul Waterhouse. The loss sustained by the Institute is severe, and to those who worked in close association with him the feeling of sorrow is very deep; but so strong and vivid was his personality that it seems difficult at present to realise that he is actually gone. Friendship with him was a great privilege and to be in his company was an active pleasure; one realised not alone the power and activity of his mind and the breadth of his culture but also the kindly, tolerant nature, the interest he found in all kinds of people, his sympathy and his insight and the quick, accurate judgment that distinguished him: perhaps more than all one enjoyed the direct, adequate way in which he expressed everything he said. I have never known anyone to equal him in clear, accurate statement: picturesque and telling as his language was it was singularly free from exaggeration. I once heard him remark to a student that nothing was so little emphatic as over-emphasis, and one constantly felt that he understood the value of his own axiom. Another thing that I heard him say was that he was warned, as a boy, against reliance on adjectives, and that he had been discarding adjectives ever since!

But clear, adequate statement was merely the basis upon which his power as a speaker or writer rested: art exists in relation to language as much as in relation

to structure, and Waterhouse was a great artist in words. To efficient expression he added the beauty and interest that belong to well chosen words arranged in fine, well balanced sentences. His metaphors and similes reflected in most vivid fashion the images in his mind and they seemed capable of constant extension and re-application: his illustrations adapted themselves to the development of his subject in a way that was a delight to the listener: he had wit and humour, he had imagination, grasp and resource: and although one would not call him an especially eloquent speaker there were times when his utterances were most moving and impressive.

He did not seek the honour of being President: for a long while he resisted it; but having accepted the position—and for a great part of the time it was a position of extraordinary difficulty—he won the esteem of everybody by the tact and efficiency with which he conducted the affairs of the Institute; by the reasonable, courteous way in which he met opposition; by his fairness and by the dignity with which he represented us on all occasions. He had tremendous belief in the potentialities of the Institute, in its authority and prestige and in the importance of extending and strengthening its influence. He did, by his own effort, extend that influence very materially by visiting the provincial societies, winning their active support and making personal acquaintance with their members.

He realised the rapid change that is taking place in provincial life as the result of the increase in business and wealth, the growth of population, the extension of facilities for communication and, in particular, as the result of education; and he applied himself as his predecessor Sir John Simpson had done, very seriously, to making the alliance between the provincial societies and the parent body stronger and more effective. He took great interest, especially, in the schools of architecture in the provincial cities and in addition to his duties as President he actually discharged those of External Examiner in the schools at Aberdeen, Cardiff, Edinburgh and Glasgow. These are duties that demand close attention to a great deal of detail as well

as call for experience and sound judgment; but it was characteristic of him that with all his penetration and insight he studied details with most patient care.

He might have excelled in any profession; certainly he might well have made a very great lawyer; but he devoted himself heart and soul to the art and profession of architecture and gave us freely of his best. Even if he had lived longer we could not have repaid his generous and unselfish efforts, but I hope that he realised in some measure the affection and respect that they won for him from all his colleagues and perhaps not least from many of those who differed from him in important matters.

Mr. Waterhouse was born at Manchester in 1861, the son of Alfred Waterhouse, R.A., and Elizabeth, daughter of John Hodgkin and sister of Thomas Hodgkin, historian. He was educated at Eton, where he reached the sixth form, and at Balliol College, Oxford, where he was captain (and cox) of the College eight, and obtained an honours degree (second class in classics).

Mr. Waterhouse served his pupilage with his father, with whom he was for ten years partner. He completed his father's work at Liverpool University, at Girton College, at University College Hospital, at the Royal Infirmary, Liverpool, at St. Mary's Hospital, Manchester, at the Prudential Office Holborn, and many other places. Of his independent works since the period of partnership the principal are the University of Manchester (botany block, extension of chemical and library departments, and museum, now in progress); Leeds University (metallurgical, electric, arts, botany, agriculture, now in progress), and other blocks; Oxford University organic chemistry laboratory; Prudential offices at Stockton, Stockport, Leicester, Aberdeen, Dunfermline, Grimsby, Darlington, Middlesbrough; additions for the National Provincial Bank, Bishopsgate; Refuge Assurance Company extensions at Manchester; new premises for Lloyds and National Provincial Foreign Bank at Paris, Brussels, and Antwerp, now in progress; St. Francis Church, Hammersfield; Convent of the Incarnation, Oxford; various domestic cottage and church works at St. Andrews, Fife; the Tabernacle of the Blessed Sacrament of St. Mary Magdalene's, Osnaburgh Street; the medical school of the University College Hospital, Gower Street; the Royal National Pension Fund for Nurses, Buckingham

Street, Strand; the London Salvage Corps; the Atlas office, Birmingham. He was appointed architect, in conjunction with Mr. George Hornblower, of the new buildings of University College Hospital. He has written extensively on architectural subjects in periodicals, has frequently lectured on the same topics and on London problems. For Macmillan's guide-book of Italy he contributed a summary of the architectural history of Italy, and has written many lives in the *Dictionary of National Biography*. He was a life trustee of Sir John Soane's Museum.

He was elected an Associate of the R.I.B.A. in 1889, having won an additional prize in the old Associateship examination, being second to the Ashpitel Prizeman of his year. In 1886 he was awarded the Institute Silver Medal and twenty-five guineas for an essay on "Pediments and Gables."

He was a Vice-President of the R.I.B.A. from 1915 to 1919 and was President 1921-1922. He has also been Vice-President of the Architectural Association. He was for many years a performing member (tenor) of the Bach Choir and of the Magpie Madrigal Society.

He married in 1887 Lucy Grace, daughter of Sir Reginald Palgrave, K.C.B., and has one son, Mr. Michael Waterhouse, A.R.I.B.A., who has been since 1919 in active partnership with his father, and two daughters, the elder, Rachel, being the wife of Captain James F. Younger of Arnnbrae, Alloa.

Mr. Waterhouse, who had been taking a rest for about three months owing to slight heart trouble, died quite suddenly at his country home, where he had lived since the death of his mother in 1918.





HEYSHAM (NEAR LANCASTER): THE HOGBACK (ABOUT A.D. 1000)

Pre-Norman Free Standing Stone Crosses

BY JOHN HALL [F.].

ARCHÆOLOGISTS are satisfied that before about 650 A.D. there was no distinctly Christian art existing in Great Britain. What monuments we do possess, however, of the pre-Augustine Church consist of rude pillar-stones with incised crosses of early form, with debased Roman lettering, and, in Celtic areas, with Celtic inscriptions and Ogams in addition. Christian monuments of this early type have been found on two sites, at Whithorn and Kirkmadrine, both in Galloway. Whithorn, we are informed by Bede, is the traditional site on which St. Ninian built a stone church (400-430), afterwards known as Candida Casa. Some of these monuments show the Chrismon monogram described within a circle, with Romano-Gallic inscriptions below; they had been set up over graves of the departed, while one stone at Whithorn had been used originally as a boundary mark. The date of these markings and inscriptions is somewhat uncertain, but Professor G. Baldwin Brown, in *The Arts in Early England*, Vol. V., wherein these stones are illustrated, ascribes them to the provisional date of the fifth to the sixth century. Thus it may be said that these early Romano-Gallic stones form the prototype of all Anglian and Celtic free-standing stone crosses.

In a subsidiary way we have in County Durham sepulchral monuments of an interesting nature known as the Hartlepool "Pillow-Stones." These stones average in size from 5 to 8 inches square by $1\frac{1}{2}$ inches thick. They are ornamented with an incised cross, a circle surrounding the intersection of the limbs, while the latter terminate each in a semicircle. The inscriptions which occur are in Teutonic runes as well as in Latin, and are therefore ascribed provisionally, by Professor G. Baldwin Brown, to the seventh and eighth centuries. Grave-slabs similar to these exist at Clonmacnois, Monasterboice and elsewhere in Ireland, although not "pillow-stones," the earliest of which is dated the eighth century. At Lindisfarne there are also three upright gravestones with incised

crosses and inscriptions similar to those of Hartlepool, with the exception that the outline of the slabs at their heads is curved. Of the same order of early grave-slabs we have, at St. Peter's Church, Monkwearmouth, an interesting example in the well-known Herebercht memorial. Although the cross shows a rectangular centre and terminals, it is like one of the lost Hartlepool stones; it is similar to some at Clonmacnois, and is considered to be of the seventh or the early eighth century.

It will accordingly be seen that the Hartlepool "pillow-stones" are earlier in date than similar stones in Ireland. Hence the question as to whether the cross with central circle and semicircular or circular terminals originated in Ireland or was imported from England. Professor G. Baldwin Brown suggests that in these circumstances that the claim of Ireland to priority should be abandoned, and a reconsideration of the current theories as to the relation of Irish and British artistic forms should be enquired into by archæologists.

With regard to the Celtic MSS., none of these can be dated earlier than the middle of the seventh century. The illuminated Celtic MSS. are not now thought to be quite so early as some antiquaries of the last century believed. The Lindisfarne book, for instance, is considered by Professor G. Baldwin Brown to date from the beginning of the eighth century, and we may take it as the starting point of all Hiberno-Saxon art. This book, it should be noted, contains no foliage ornament on its pages. Another of these famous MSS. is the Book of Kells, now in Trinity College, Dublin. It is somewhat later in date and more elaborate in execution than the Lindisfarne Book. It contains foliage ornament in addition to portraits of the Evangelists, etc. Leaf and plant decoration, it should be noted, is entirely foreign to the spirit of purely Celtic art, and, wherever found, is generally to be traced to Northumbrian influence.

To illustrate this part of our subject by a more concrete example, reference must be made to the Ormside Cup, now in York Museum. The silver gilt repoussé which ornaments its outside cover depicts vinelike foliage in which birds, quadrupeds, and fantastic creatures disport themselves. There is no Celtic influence shown in the ornament; it is considered to be of Anglian origin, and dated about the eighth century.

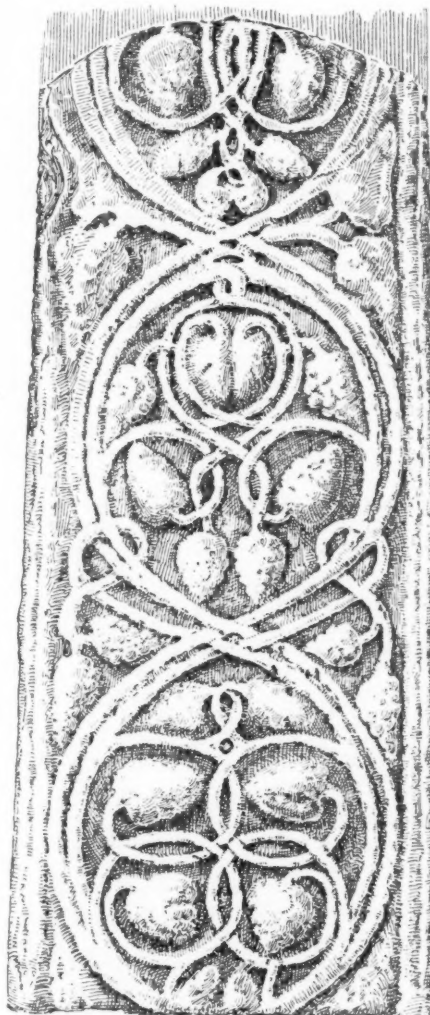
In the middle of the seventh century many monasteries were founded, especially in the north. The erection of monuments or carved crosses did not become general until some time after the foundation of these institutions in Saxon Britain. At this period, of course, there were no native stonemasons in Northumbria, nor indeed were there any until St. Wilfred and Benedict Biscop brought foreign workmen to build their abbeys.

After the conversion of the Saxons to Christianity, communication with the Continent became more frequent, and it was principally from Gaul and Italy that ecclesiastical MSS. and other decorative motives were first introduced to this country. These new forms of art were developed by the scribes in the illuminated MSS. by carvers in stone, and by other artificers in many different materials, though the manuscripts are the best preserved and most widely known remains of the art of this period. It is to the Continent, therefore, that Britain is indebted for the origin of those wonderful designs of foliage, sculpture work and interlaced plaitwork ornament executed during the Saxon-Celtic period from the seventh to the eleventh century. The carved foliage of this period, such as scroll-work with conventional bunches of grapes, are from the Classical vine: a symbolic emblem of the blood of Christ from early Christian times. Birds and beasts are occasionally included, involved in the foliage. This feature is non-Celtic, and wherever found is proof of Anglian influence from Northumbria.

By way of emphasizing this fact I cannot do better than quote the words of Prof. Lethaby, who so admirably sums up the leading position once held by this northern part of Saxon England. "It was at the end of the seventh century when the kingdom of Northumbria attained its zenith of power. Northumbria at this time in many respects led the civilisation of Europe. Nowhere else was there a scholar like Bede, nowhere a native poet like Caedmon, nowhere else was gathered such a group of great men, nowhere else was there a school of art like that which produced the Lindisfarne Book, the crosses of Bewcastle and Ruthwell, and the beautiful English coins of this period."

In St. Wilfred's time ancient Northumbria was the leading centre of cultivation and art, and it is almost certain that the carved free-standing stone cross originated at Hexham. At least, the leaf and fruit scroll ornament appears to have been first adopted there, and from this centre the idea travelled in all directions, northward as far as the South of Scotland, southward to the Humber and from sea to sea. The so-called cross of Bishop Acca, now in the library at Durham, and the Spital cross at Hexham, exhibit an early example of the vine scroll ornament. This class of decoration, it is almost certain, was the work of imported craftsmen from Italy or the east, introduced by St. Wilfred and Benedict Biscop.

The interlaced plait, set diagonally, was an ornament freely used. Knotwork was gradually developed from the plait by introducing breaks at regular intervals, and, as the style advanced, circular and triangular knotwork were evolved. Throughout western Europe this style



WM. GEORGE FOOTITT.

PORTION OF THE ACCA CROSS.

of ornament prevailed from the sixth to the twelfth centuries, and it was carried further in Great Britain and Ireland than on the Continent. It has been stated that the plait was derived from basketwork or from weaving, but most probably the idea originated from the interlaced designs found so plentifully on Roman mosaics.

pavements; and these in turn were derived from the guilloche, an ornament used in Roman architecture, which resembles skeins of worsted twisted together. In the early and finer Anglian work we find the knotwork well designed, close, and regularly spaced, while in similar work of the Viking age the knots became looser and less symmetrical.

Another ornament, mostly seen in Celtic areas, is the Key pattern, and may be described as that which bears a certain resemblance to the perforations in a key to allow it to pass the wards of the lock. This was, no doubt, copied from the Greek Fret, with this difference; when taken over by the Christians the pattern was turned round through an angle of 45 degrees, so as to harmonise directionally with that of the diagonally interlaced plait.

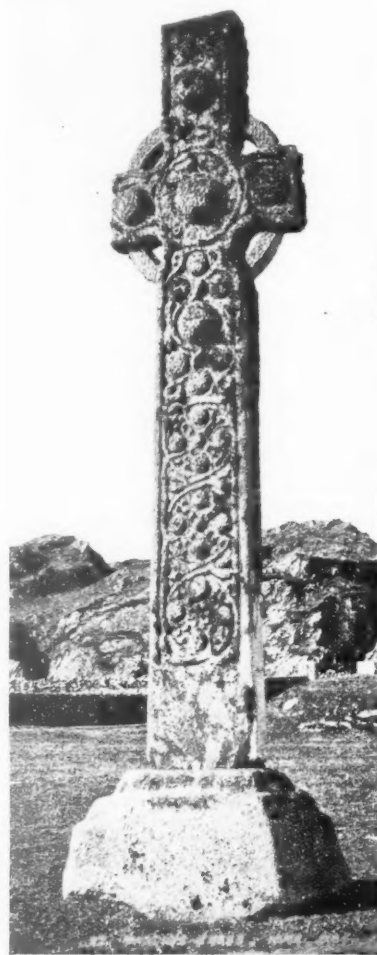
A non-Anglian motive is the re-entrant spiral ornament, which consists of circles connected with S or C shaped curves. The circles are filled in with spirals worked from the tangent points where the curves touch the circle, inwards to the centre. The S and C shaped curves take the form of a trumpet. This spiral is probably the only decoration that can be proved to have been borrowed from Pagan-Celtic art, and is mostly found upon the sculptured monuments of Ireland and Scotland. On the other hand, in Wales, Cornwall, and the Isle of Man, it is extremely rare, and the same may be said regarding its use in England, except upon illuminated MSS.

Animal and human forms upon Hiberno-Saxon monuments appear at an early date; at least, this is so with regard to Northumbria. For at Hexham were found three fragments of a panel, two of which are in Durham Library, showing foliage, human figures and animals carved in low relief. This panel has been restored tentatively, and it is possible it was executed in the seventh century, for from that time these *motifs* were the common stock-in-trade of the designers. The nonsense animals, or "Zoomorphs," are traceable from these by gradual degeneration. In the tenth century, when the artist could not draw, the animals grew wilder and the human figure was drawn very sketchily and round-shouldered.

Although Ireland may possess a large display of sculptured crosses, we have at Bewcastle and Ruthwell two monuments of this description which possess an interest and artistic quality in design and execution which nothing can surpass. With the fine Anglian work is associated a more graceful type of animal and bird, well designed; the scrolls of leaves and fruit having flowing lines and rounded surfaces. Not until after the Danish invasion, in the ninth century, do we find dragons, bears and snakes carved upon the monuments. Designs depicting beasts of savage strength, true Scandinavian monsters, are portrayed biting their own bodies, limbs, or tails, or the body, limbs or tail of the beast immediately in front. Birds also were arranged on the same principle. In the tenth and eleventh centuries, Danish and Scandinavian art did not admit plant form in ornament. Serpent creatures are common in Celtic art, but there are no snakes shown in the Lindisfarne Book or on the carved monuments of the Anglian type. Reptilian creatures did not appear until the Anglian artists were working

under Danish and Norse influence. Yet we have on Monkwearmouth porch creatures of the grotesque family!

It is impossible to fix dates of early carved Christian stones, although the expert archæologist is able to place



ST. MARTIN'S CROSS, IONA
(Not earlier than 12th century)

them in their proper period, much in the same way as the geologists classifies the strata of the earth's crust. In this connection, therefore, I feel it will be of great assistance to adopt a method for the classification and dating of

the Anglian examples, which has been evolved by W. G. Collingwood as follows:

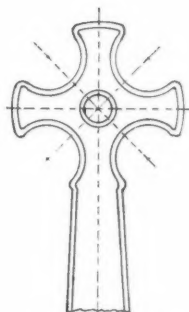
A STYLE is work of the period ending with the Danish invasion, c. 867.

AB STYLE is work done by surviving craftsmen and

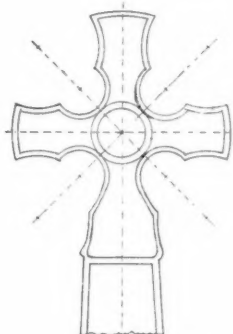
C STYLE are the various developments of the eleventh century and early twelfth century, until Norman art superseded.

The history of the Anglian monument, briefly stated, is this. It may be said to have started from severe

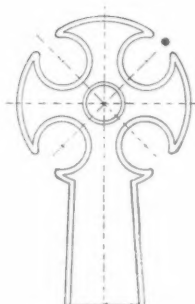
ANGLIAN CROSS HEAD.



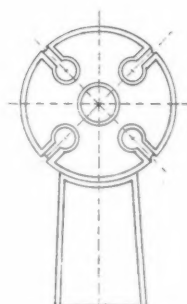
Nº1 VIII Century.



Nº2. Later VIII Century.



Nº3. Early X Century.

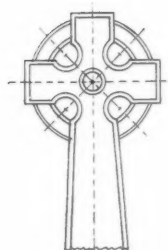


Nº4. Late X Century.

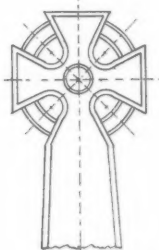
WHEEL-HEAD CROSS.



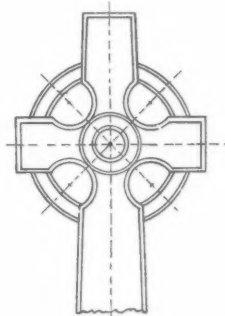
Early IX cent. Iona & Irish Slabs



Early X cent. Free Wheel Head.
Isle of Man.



Ordinary X Century
Yorks & Cumberland



Late Scottish
Iona & Kells.

Danes, who learnt from the older traditions; the overlap period till about 900, or in non-Danish districts later.

B STYLE is work done when Danish and Scandinavian taste asserted itself under the independent kingdom of York in the first half of the tenth century.

BC STYLE is work done when Danish taste was modified and Danish craftsmen improved under southern influence in the latter part of the tenth century and the earlier part of the eleventh.

design and careful execution, followed by more florid effects, which reach their climax in the eighth century, declined in the ninth, followed by the tradition becoming partly lost upon the invasion of the Danes, c. 867. The invaders, after settling down, adopted the fashion of setting up grave monuments, which were carved by the surviving Anglian artists, whose work was, however, poor in style. Later, in the tenth century, the Danes borrowed their art from Ireland (or Scandinavia), which

consisted of debased Anglian scrolls, plaits, strap-tangles and figures. They were always poor designers and could never draw the human figure or animals, but were content with grotesques, such as snake-tangles, and dragons tied up in their own tails. "They preferred regular snake-slugs to symmetrical leaf-scrolls, and dragons to doves." Finally, after the eleventh century, this kind of ornament in England ceased altogether, although in Celtic districts the art was continued for some time after the Norman Conquest. The high-standing crosses of Ireland and Iona, for example, are now considered to have been erected during the tenth and the following centuries.

It would, therefore, be assumed that upon the finer type of Anglian crosses we find no Celtic ornament. Indeed, as has been pointed out by W. G. Collingwood, there are many plait-designs used by Anglian carvers not to be found upon sculptured stones in Celtic areas. Yet nearly all the knots common to Celtic and English work are found only on inferior examples of the Anglian stones of the Danish period. It was probably not until Ragnvald became King of York (919), bringing with him an Irish-Viking army, that we find a distinct opportunity for Celtic influence upon the monuments of the north.

Attention must now be directed to the evolution of the Anglian free-standing cross. From passages in the lives of the early saints of the fifth, sixth and seventh centuries, we are informed that, in many instances, crosses were erected in commemoration of varying events, such as those connected with the names of saints, or even secular events, as well as funeral crosses, and crosses proclaiming the Gospel, miracles, the marking of enclosures, and preaching crosses. Some of these would be Pagan menhirs converted to Christian use, some were of wood, and, again, others would be of rough-hewn stone. There is no doubt that the earliest monumental cross was of wood, formed of an upright log roughly squared, with a short piece of similar section mortised across it to form a transome. A plain cross of this material, we are informed by Bede, was erected by King Oswald at Heavenfield, four or five miles north of Hexham, in the year 635. Thus from the simple wooden cross it would appear that the stone cross head may have been evolved, going through developments up to the penannular Whithorn type, which is of the late tenth century. There have been four main types of cross heads so evolved in England up to this period, all of which are represented in remains, with the exception of St. Oswald's; the development, says W. G. Collingwood, is not theoretic but historical.

First in order of evolution is the eighth century free-armed head which took the form of St. Cuthbert's pectoral cross.

(2) In the more fully developed A style, the cross head, in great crosses, gained in size and variety of outline. The terminals of the arms were expanded slightly, or spatulated. This type of head was the model selected by the designer of the Bede Memorial, at Roker, Sunderland. With coarser ornament on the crosses, the heads, likewise, are coarser. "The terminals of the arms are oblong, and the armpits instead of being gracefully curved, are mere bites taken out of the stone."

(3) Early in the tenth century the cross head had undergone a further change. The terminals are more expanded, hence they are known as fan-shaped arms.

(4) Later in the same century we arrive at the Whithorn, or penannular type, which takes the form of a circular head with four holes countersunk, sometimes pierced through. The cross arms are now so expanded that they are almost touching each other; they are each separated by a narrow groove; but for the grooves this type would be a wheel-head cross.

Independently of the Whithorn development the wheel-head cross was invented and came into fashion in the tenth century. It originated in the Isle of Man. This centre of origin, it has been stated by W. G. Collingwood, may be proved by plotting on a map, when it will be found that this type of cross-head ran in lines radiating from the Isle of Man by the Viking routes, the first to Penrith, and so on, over to Yorkshire, wherever the Vikings went.

It was not a Norse idea, nor yet strictly Celtic, it was simply a fashion of the later period adopted nearly everywhere when people tired of the older types. "There are more Wheel-heads (other than Cross-slabs) in the North of England than in Celtic countries."

If illustrated books of Manx crosses be consulted, one may there trace the early wheel-head cross-slab in the act of losing its margin, being cut away into the free-wheel head cross. Thus in Celtic areas we find that erect cross-slabs of the early ninth century have the wheel formation incised upon them. Early in the tenth century the surrounding slab portion disappeared and we have the free-wheel head as found in the Isle of Man. Later in the same century the limbs of the cross, instead of being square ended, are fan-shaped.

This type is frequently found in Yorkshire and Cumberland. Finally we have the fully developed wheel-head cross similar to those still standing in Ireland and Scotland.

As regards the type now being discussed it has been stated that "The high crosses still remaining in Ireland are 45 in number, 32 of which are richly ornamented, and eight of these bear inscriptions regarding persons who died between 904 and 1150 A.D."

From the foregoing it will be gathered that the wheel-head or Celtic cross was not of an early origin.

We find that while most of the Scottish and Manx crosses are relief slabs, the shafts of the early Anglian free-standing crosses are square in section, and those of Danish craftsmanship are thin and similar to the Gate-post type. Then comes a revival in the latter part of the tenth century, when better mason-craft prevailed, and in consequence the cross-shafts of square section were again revived. In addition to the foregoing there are also round-shafted crosses, wherein the section of the lower part being circular that of the upper portion is square. This type of shaft, although uncommon, is found in Cumberland, Yorkshire, Staffordshire, Cheshire, Nottinghamshire and Wales; but the tallest complete specimen exists at Gosforth, Cumberland. The date of these examples range from about 800 to after 1000 A.D.; that at Gosforth is probably c. 1000.

There are many memorial sculptured remains of pre-Norman character existing in the county of Durham, the earliest of which are more beautiful, distinctly of the Anglian School, while the later examples are inferior both in design and execution. At the Library, Durham

Cathedral, will be found the most numerous collection of sculptured stones, where probably remains of the Acca cross will be considered the principal example of Anglian work. Acca died in 740. The so-called St. Oswald's cross shaft is also of interest, and is of the late tenth



CROSS OF ABOUT A.D. 1000 AT GOSFORTH, CUMBERLAND

century. But the most important find of this collection in the city of Durham occurred in 1891, when the heads of four crosses were discovered in the foundations of the Chapter House. Some of these exhibit crude carving of the Crucifixion, and are apparently also of late tenth century.

In this collection will be noticed specimens of roof-tombs, known as "Hogbacks." They are copied stones with a curved ridge, hence the name "Hogback." Some are a copy in miniature of a house, the roof portion is tegulated (tiled), with gables at either end, and become "little houses of the dead." Later types of these "hogbacks" are mostly decorated with plait or knotwork, and at either end always have a bear's head, usually muzzled, and facing inwards. This latter type of grave cover came into fashion about the end of the ninth century under Danish rule. Brompton, near Northallerton, seems to have been the centre at which the bear hogback was introduced. They are not Celtic in origin, but Anglo-Danish and Norse evolved from English shrine tombs. There are five of these stones in the Durham Library from Brompton.

In the vestry, at St. Peter's, Monkwearmouth, there is an interesting collection of pre-Norman fragments. Some of these, apart from the turned balusters, are of Danish times, but one piece in particular is of outstanding merit. It is a little corner of a sculptured slab, and has been described by Bishop Browne "as the most beautiful bit of work of this character that exists." It comes nearer to a representation of the Lindisfarne Gospels than anything else which can be shown. In addition to this collection there are several sites throughout the county of Durham where examples may be studied. For instance, at Bishop Auckland, in the Church of St. Andrew, commonly called South Church, there is an interesting group, nearly all of which were recovered from the walls of the south transept during building operations in 1881. One of these cross shafts is unquestionably of very high merit and has higher artistic qualities than any other example of Anglian carving in the county. Its sculpture work on the narrow sides of the shaft has the vine-scroll, with animals and birds involved, similar to that depicted upon the shafts at Ruthwell and Bewcastle; its date is probably eighth century.

At Aycliff are many fragments of pre-Norman workmanship, but, of particular interest, there are in the churchyard the remains of two cross shafts. The circular base of one is ancient. The broader of the two shafts shows a representation of the crucifixion, with sun and moon symbols at the head. On either side of the cross human figures are standing, each armed with a spear; there are also figures sculptured above the latter, and near the top are fragments of interlaced animals; other panels show an interlaced cord plait. This work is apparently late Anglian, before the Danish invasion.

A catalogue of the remaining sites in the county of Durham may prove of interest, and is as follows:—Billingham, Chester-le-Street, Coniscliffe, Darlington, Dinsdale, Elwick Hall, Escombe, Gainford, Hart, Haughton-le-Skerne, Hurworth, Jarrow, Norton, Sockburn, Staindrop, Stainton-le-Street, and Winstone-on-Tees. At Sockburn there are 25 stones of this period. One cross-shaft has the key-pattern ornament, and is of Danish origin. Here will also be seen a hogback grave-cover of late date.

There remains to be considered two of the most important pre-Norman Anglian crosses existing in the British Isles, one at Bewcastle, in Cumberland, and the other

at Ruthwell, in Dumfriesshire. These sister crosses undoubtedly have been the subject of more literary efforts and controversy than any other two monuments erected during the period under review. The first of these, the Bewcastle shaft, stands in the graveyard of St. Cuthbert's Church. It is a monolith 14 ft. 6 in. high, with a base measurement of 1 ft. 10½ in. by 1 ft. 9 in. The

is a sundial marked according to the octaval system of the Angles. This system consists in dividing a semicircle by lines into four divisions; the vertical line indicating noon (Sext), that on the right hand, nine (Terce), and that on the left hand, three o'clock, or None.

The cross at Ruthwell resembles in many respects that at Bewcastle as regards its sculpturesque figure panels and



West View North View East View South View
BEWCASTLE CROSS

material is of a very compact native sandstone. Each of the four faces is divided into compartments or panels which display in bold relief human and animal sculptures, fruit-bearing plants with involved birds pecking at the fruit; there is interlaced knotwork in other panels. The angles of the shaft have each a roll-mould, as was usual in most Anglian work. In addition there are also inscriptions in Anglian runes, and upon the south face

foliage panels; therefore it is almost certain that these two monuments were both designed and executed by the same craftsmen, or at least by craftsmen of the same school. Being originally in two pieces of local dark purple sandstone, the shaft is not in consequence a true monolith; and, unlike the moulded angles of Bewcastle cross, the angles at Ruthwell are square, thus affording suitable surfaces to receive inscriptions. And, most unusual of

all, there are no cord plait or knotwork designs upon any of the panels. This cross has had a most varied and chequered career, both legendarily and historically. According to tradition it was brought to the site and a church was subsequently built over it.

Historically we know that by order of the General Assembly in 1642 the cross was thrown to the ground

doctor caused to be added to the shaft a new sculptured transome to replace the missing members of its crowning finial. Ultimately, in the year 1887 an apse was specially built on the north side of the church wherein to house and preserve the cross, in which enclosed and sheltered site it remains at the present time. One of the panels of this cross displays a view of the crucifixion, of early type, and



A B
Fig. 1—North and West Sides

C D
Fig. 2—South and East Sides

THE RUTHWELL CROSS

(From an anonymous drawing made about 1860)

and broken. At that date it stood near the altar in the church. From that time it lay in fragments inside the church, and, at a later date, these were removed to the churchyard. In the year 1803, however, the fragments were gathered together and re-erected in the garden of the manse by the Rev. Dr. Duncan. Then in 1823 the

in fact, all the decorations upon Ruthwell and Bewcastle crosses have recently been the subjects of much discussion by modern writers with a view to arrive at the date of these two monuments.

For the present, however, it only remains to briefly refer to some of the opinions expressed upon the subject.

In 1912, Professor A. S. Cook, of Yale, U.S.A., published his opinion that the crosses were of the twelfth century.

Dr. King Hewison in 1914 came to the conclusion, in his book *The Runic Roods of Ruthwell and Bewcastle*, that these two monuments were erected in the tenth century. In 1921 Professor G. Baldwin Brown considered they had been erected towards the end of the seventh and not later than the beginning of the eighth century. At the same time he also expressed the opinion that the Ruthwell cross was erected to the order of Alcfrith after his victory over the Picts (c. 675) and that at Bewcastle is a funeral monument also in memory of Alcfrith, son of Oswy, King of Northumbria, and his wife, Cuniburga, daughter of Penda, of Mercia.

I may add that Professor W. R. Lethaby is in agreement with Professor G. Baldwin Brown as regards the date, but, on the other hand, W. G. Collingwood contends for

a middle date, by placing them in the eighth century, and at the same time disagrees with Dr. Hewison because, as he states, in the tenth century the kind of work then being done was wholly unlike the styles of these famous crosses at Bewcastle and Ruthwell.

In conclusion, we have found in tracing the evolution of the pre-Norman crosses that Hiberno-Saxon art was not of purely native origin, but was borrowed or introduced from the Continent. But we also find that, after having being taken over, it was developed by our native artists, who put into it so much of their own individuality that it eventually became an entirely original style the like of which the world had never seen before.

*. The author desires to express his indebtedness to Greenwell's "Sculptured Stones in the Cathedral Library, Durham," "The Handbook of St. Peter's, Monkwearmouth," and to various other authorities for the illustrations which appear in his Paper.

Correspondence

MR. BAGENAL'S PAPER ON ACOUSTICS.
To the Editor, JOURNAL R.I.B.A.,—

SIR,—It was eloquent testimony of the interest the subject had aroused in those present at the meeting on 17 November that, in spite of the room rapidly emptying by 10 p.m., for the catching of country and suburban trains, there were still remaining those with nerve enough to keep the meeting going until nearly 10.30 o'clock. Not having quite the temerity, on the occasion of one's first attendance at an Institute Paper after an absence of some twelve years abroad, to seek to hold the meeting for yet another quarter of an hour into the night, I venture to offer the following contribution to the discussion of Mr. Bagenal's Paper, taking comfort in the fact that it rests entirely with members themselves as to whether or not they avail themselves of a perusal of your valuable contributed notes. Otherwise, one rather wanted to tell the scientists who were present that if they can but invent a non-reverberating plaster they will be doing a truly imperial work, and that they will earn the lasting gratitude of vast numbers both of Indians and Englishmen in India. For in that favoured land one of the most atrocious forms of construction ever standardised and blessed with official countenance is held sacrosanct. I refer to the "jack-arched" ceiling, the origin of the term being derived, one can only imagine, from the fearsome type of centring or "jacking-up" used in its construction. It consists of not one more or less harmless segment, as No. 3, Fig. 3, of Mr. Bagenal's illustrations, but of a series of, say, five segments to a room perhaps some 25 ft. wide: brick arches springing from either the lower or upper flange of rolled steel joists and duly plastered on the soffits. The room as often as not square, with a height of some 20 ft. or so—an average height—the whole as near as may be a *cube*. I should dearly like to see Mr. Bagenal's diagram of the behaviour

of such a ceiling under the influence of some five or six people in fervid conversation. Moreover, in the "hot weather"—i.e., for seven months in the year—nor carpet nor hangings of any kind enter to help matters; a floor of concrete or, perchance, mosaic; a minimum of furniture. Even for the other five months, with normal hangings, carpets, etc., again in use, the conditions are bad enough. It may, therefore, confidently be asserted that there is a future for the plaster which will defeat the jack-arch if it be but placed upon the Calcutta market. It must, however, to be successful, be a plaster that can be made up with but little supervision, and that can be rendered with unskilled—i.e., *unapprenticed* labour.

For economy of sectional construction, and for the climatic and lighting conditions which presented themselves very forcibly at the time, a section somewhat like Mr. Bagenal's section 3, Fig. 3, was adopted in certain court rooms in Allahabad in 1912. They were not a success acoustically. But very little put them right. The ends, from height of judge's dais to springing line of ceiling, were already subdivided into large panels by plain plaster ribs: the plaster in these panels was scraped off, stout canvas was stretched on a lath framing the exact thickness of the plaster removed, and whitened as the walls. The framing was fixed to plugs with screws so that it could be taken out and cleaned at back or re-stretched if necessary, though it has not required to be touched in, at all events, the course of ten years under very considerable variations of climate. There were, in their forbearance, no subsequent complaints from either bench or bar. The ceilings were not touched. But let it be admitted that with a hard English plaster, as against the much softer Indian mixture, the measures taken might have been rather less efficacious.

All this is not to say that the measures taken were

viewed with any degree of complacency, or that one particularly likes the idea of canvas with a hollow back. Still, is it any less uncomfortable than if padded up with felting of one kind or another; and is it, after all, any worse than the space behind any ancestral portrait? But what struck one at the time was the comparative efficacy of dealing with quite a small proportion of the wall surface. For not only were the ceilings not touched, as noted above, but the side walls were also left alone, which prompts one to the thought as to whether we may not be liable to run to the extreme of *over-cushioning* our walls.

The height and necessary bareness of rooms built for use in the hot weather in the plains of India (and doubtless also elsewhere) must always make it difficult to attain acoustic perfection, and it is therefore hoped that the full results of the research, experiments and practical tests which are being conducted by the Government of India for Mr. Baker will be made available for general use. Strikingly fine as the Hill Memorial Hall, University of Michigan, undoubtedly is, we must all have felt greatly relieved to think that we need not of necessity design all our halls on the parabolic principle, and that the researches which the National Physical Laboratory have in hand promise to help us through on some lines rather less disconcerting to the average mortal architect. Yet one wondered whether Mr. Bagenal would really advocate a 45-degree reflector over a pulpit or rostrum, or whether, if he had a free hand, he would not prefer something on even roughly paraboloid lines, which, it is understood, have already been tried in that connection.

FRANK LISHMAN [F.].

DIOCESAN ADVISORY COMMITTEES.

10 St. John Street, Bristol.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—On the other side from Mr. Adkin's letter in your paper dated the 20th instant, I would bear witness that in the dioceses where I have had experience there has been no suspicion of a dishonest motive underlying the recommendations made by the Advisory Committees.—Yours sincerely,

P. HARTLAND THOMAS, *Licentiate*.

IMPROVIDENT ADVERTISING:

22 Sackville Street, London, W.1,
1 January 1925.

To the Editor, JOURNAL, R.I.B.A.,—

DEAR SIR,—I write to protest against the inundation of calendars and almanacs, which have assumed undue quantities this year. It is an immense waste of material and time, and might well cease.

Is there no means of notifying the various contractors of this great waste, which can do no good, but only adds

considerably to the contents of the waste-paper baskets and to our irritation?

Possibly this letter may have some effect.—Yours faithfully,

WALTER CAVE [F.].

HOUSING.

Mr. James Ransome wishes to thank those members of the profession who have kindly communicated with him in response to his letter published in the JOURNAL on 22 November, and to announce that he has discussed and deposited with the Director General of Housing at the Ministry of Health the notes given below, which he understands will be considered by the authorities responsible for any housing policy which the Government may have in mind:—

HOUSING.

Alternatives as to ownership of small dwellings.

STATE OWNERSHIP, OCCUPIER'S OWNERSHIP, AND PRIVATE LANDLORD'S OWNERSHIP.

Objections to State Ownership:

1. Inability to build or maintain economically and consequent increase in cost of building generally.
2. Inability to cater for individual requirements.
3. Inability to control rents which are dictated by exigencies of politics.

Objections to Occupier's Ownership:

1. Beyond the means of the less well paid wage-earners.
2. Inimical to the mobility of labour.
3. Unsited to fluctuating family requirements. Otherwise admirable for those who can afford and wish to own the houses they occupy.

Objections to Private Landlord's Ownership:

None, but impracticable for the following reasons:—

- (a) Impossibility of competing with uneconomic rents established by State ownership and by rent restrictions.
- (b) Penalisation in the matter of repairs.
- (c) Excessive rates and taxes.
- (d) Inflated cost of building due to Building Acts and Bye-laws, the Dole, and limitation of labour imposed by Trade Unions.

Remedies:

- (a) The sale of all State-owned houses erected under post-war Housing Schemes, their value being first enhanced by exempting them from rates and taxes for a period of three years.
- (b) Termination of rent restrictions at the end of twelve months.
- (c) Limitation of landlords' liability to a percentage on the rent, such percentage to be remitted to the tenant if not expended upon repairs.
- (d) Exemption from rates and taxes of all houses below a specified size and completed within twelve months for a period of three years.
- (e) Suspension of all building restrictions not essential to public safety.

Deletion of the word "suitable" before "employment" in the conditions qualifying for receipt of the Dole.

Protection of unorganised labour. Secret ballot for Trade Unions and their inclusion within the scope of laws governing other associations.

A graduated subsidy proportionate to the size of houses, not exceeding a specified size and built within a period of twelve months.

Loans to builders on easy terms.

Compulsory sale of land required for small dwellings.

Abolition of Slums:

State purchase and re-sale subject to rebuilding conditions.

Preservation of St. Paul's Cathedral

SECOND INTERIM REPORT OF THE EXPERTS' COMMISSION.

The Commission of five experts appointed in 1921 to consider the desirability or otherwise of revising the method of repairing the damaged parts of St. Paul's Cathedral has addressed a second interim report to the Dean and Chapter of St. Paul's. It represents the unanimous opinion of the Commission.

The report is as follows :

December 29, 1924.

The Dean and Chapter of St. Paul's.

GENTLEMEN,—At a meeting at St. Paul's on Friday, 5 December, it was decided that a second interim report should be made giving the result of the further examination which has been made by your Commission since their report of 1 June 1922. In that report your Commission referred to the condition of the masonry of the main piers, and the consideration of your Commission has for some time been largely concentrated on the best methods of consolidating the interior structure of the main piers, which carry a considerable proportion of the great load of the drums, the inner and outer domes, and the interior cone, which strengthens the outer dome itself and also carries the external lantern and cross above.

Various experiments have been made with the object of strengthening the interior rubble filling of these piers by injecting cement under pressure into the cavities that exist in the rubble filling. This has presented special difficulties owing to the character of the filling.

Your Commission have decided to recommend the adoption of the plan which has been experimentally used on the north-east pier, and with which they are satisfied, for although it is practically impossible to say that the whole interior of the pier has been completely consolidated, they are of opinion, after examination, that sufficient has been done to strengthen it satisfactorily, such treatment to be followed by a gradual replacement of the broken external facing stones as already carried out by the surveyor of the fabric, Mr. Macartney, on the south-west pier. If this treatment is adopted, your Commission believe a new lease of life will be given to the piers at a reasonable expenditure of both time and money and without serious disturbance to the services.

The question of approximate cost is not easy to estimate, but, taking the actual cost of grouting and cementing part of the north-east pier, and the actual cost of repairing the stonework to the south-west pier by Mr. Macartney, the cost may be put at from £120,000 to £140,000.

Your Commission have also discussed the alternative of reconstructing the piers entirely, and, while they do not doubt the possibility of doing this, though it might involve the taking down of the dome and its supports, yet in view of the enormous cost and the necessity of closing the greater part of the Cathedral for several years—to say nothing of the great risk of disturbance involved—your Commission are convinced that the wiser course would be

to grout and to repair the piers in the first instance, as above indicated, leaving it to a later generation to undertake the larger operation should it at any time become absolutely necessary.

Your Commission therefore recommend that the grouting of the piers on a carefully prepared programme, together with the repairs to the stonework, should be proceeded with. They wish to record their opinion that this should be done forthwith. It will naturally take time to carry out, but unless put in hand at once and vigorously pressed to a conclusion, they consider that the situation may rapidly become grave.

We are, Gentlemen, yours faithfully,

ASTON WEBB.
E. C. TRENCH.
BASIL MOTT.
G. W. HUMPHREYS.
MERVYN MACARTNEY.

THE ANNUAL CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS.

The President of the Royal Institute of British Architects desires to bring to the notice of all members of the R.I.B.A. and of the Allied Societies the following letter which he has just had the pleasure of receiving from the President of the American Institute of Architects :

*The American Institute of Architects,
Washington, D.C.*

November 28 1924.

DEAR SIR,—The American Institute of Architects extends to you and all the members of your organisation a cordial invitation to attend the 58th Annual Convention of the Institute. The Convention will occur in New York City, 20 to 24 April 1925. In conjunction with the Convention an Architectural Exhibition will be held from 20 April to 2 May.

The Architectural League, painters and sculptors, landscape men and town planners, and, in fact, also the building industry, are joining hands with the Institute to arrange an "Exposition of Architecture and the Allied Arts," which promises to be unique. Our brother architects of other countries we hope will be interested to have some of their best work represented and to have some of their ablest members present.

Following this formal invitation it is our desire, if it please you, that further detailed information shall be sent you regarding the Convention programme and the Exhibition as well.

Hoping that we may have the privilege of welcoming you and other representatives of your society, I beg to subscribe myself,—Faithfully yours,

(Signed) D. EVERETT WAID,
President.

J. Alfred Gotch, Esq., F.S.A.,
President R.I.B.A.

It is hoped that a substantial number of British Architects will be able to take advantage of this most welcome invitation, and that they will in due course send their names to the Secretary of the R.I.B.A. for transmission to New York.

Obituary

DEATH OF SIR WILLIAM EMERSON.

It is with great regret that we have to announce the death of Sir William Emerson, Past President R.I.B.A., at Shanklin, Isle of Wight, on the 28th December. Sir William Emerson was President of the Institute from 1899 to 1902, and for some years had been in a precarious state of health. Sir William was 81 years of age. Further reference to his career and association with the R.I.B.A. will be published in the next issue of the JOURNAL.

THE LATE ARTHUR WILLIAM SHEPPARD [A.].

It was my privilege to be closely associated with Mr. Sheppard for over fifteen years and it has occurred to me that it might interest some of our members if I recalled a few facts concerning him.

He served with Mr. Stanley Peach from 1885 for three years and subsequently with the late Mr. Charles Bell until 1890, when apparently he joined the staff of the late London School Board under Mr. Bailey. Sheppard gave occasional assistance to Mr. Sprague and the late Mr. Frank Matcham upon certain theatre work and designed a large part of the Coliseum, the front of Wyndham's Theatre, and the buffet of the Hippodrome for Mr. Frank Matcham, and his twenty-four years of School Board work undoubtedly influenced the character of these buildings in the London area. Although he was in a public office he carried out some private work and entered for certain competitions. With Mr. Burkinshaw he won a competition for the Chelsea Dispensary which was erected during the first decade of the present century.

For the purpose of creating a practice Mr. Sheppard and I opened an office in the Adelphi and subsequently moved to 43, Chancery Lane, where we designed and subsequently erected the printing works in Baldwins Place for Messrs. Howard and Jones, and also the tea room, foyer and decorations of the Lewisham Hippodrome for Mr. Frank Matcham (*inter alia*). There is a fountain designed by him in Brockwell Park dedicated to Alderman Candler.

When Mr. Sheppard joined the L.C.C. he found his time rather more fully occupied, and the continual strain of evening competition work necessitated our dissolving partnership and the late great war prevented any further architectural enterprise being developed.

The Institute well knows the good work which Mr. Sheppard put in as honorary auditor of their accounts, and in this respect they will miss him very much because of his trustworthy integrity and charming personality, which was coupled with a keen sense of humour.

He died at the age of 56 and was interred at West Norwood Cemetery.

ALBERT E. BULLOCK [A.]

MR. WATERHOUSE'S FUNERAL.

The funeral of Mr. Paul Waterhouse took place at Yattendon, Berkshire, on Tuesday, 23 December 1924.

Among those present were:—Sir John Simpson, K.B.E., Past-President R.I.B.A.; Mr. Arthur Keen, Hon. Secretary of the R.I.B.A.; Sir John Burnet, A.R.A., F.R.I.B.A.; Mr. H. M. Fletcher, F.R.I.B.A., Hon. Secretary of the Board of Architectural Education; Mr. Alan E. Munby, F.R.I.B.A., Past-Chairman of the Science Standing Committee of the R.I.B.A., representing the York and East Yorkshire Architectural Society; Mr. F. T. Verity, F.R.I.B.A.; Mr. W. G. Newton, F.R.I.B.A.; Mr. Hope Bagenal, A.R.I.B.A.; Mr. L. Sylvester Sullivan, representing the Architectural Association of London; Mr. Harry Hutt, F.R.I.B.A., Hon. Secretary of the Berks, Bucks and Oxon Architectural Association; Mr. E. J. Sadgrove, F.R.I.B.A., Past-President of the Society of Architects; Mr. E. Stanley Hall, F.R.I.B.A., Past-President of the Architectural Association; Mr. Edward Warren, F.R.I.B.A., President of the Berks, Bucks and Oxon Architectural Association; Mr. S. Hurst Seager, F.R.I.B.A., representing the New Zealand Institute of Architects; Mr. Ian MacAlister, Secretary of the R.I.B.A., representing Mr. J. A. Gotch, President of the R.I.B.A., and Major H. C. Corlette, F.R.I.B.A., representative in England of the Federal Council of the Australian Institutes of Architects; Lt.-Col. H. P. L. Cart de Lafontaine, F.R.I.B.A., representing the Franco-British Union of Architects; Mr. Arthur T. Bolton, F.R.I.B.A.; Mr. F. H. Lloyd, F.R.I.B.A. (Newbury); Mr. Arthur Blomfield, F.R.I.B.A., representing the Surveyors' Club; Mr. Detmar Blow, F.R.I.B.A.; Mr. H. Whiteman Rising, F.R.I.B.A. (Reading); Mr. C. B. Willcocks, F.R.I.B.A. (Reading).

The following were unfortunately prevented from being present:—The President R.I.B.A.; Mr. Percy Thomas, F.R.I.B.A., President of the South Wales Institute of Architects; Mr. J. Arthur Smith, F.R.I.B.A., Vice-President of the Hampshire and Isle of Wight Association of Architects; Mr. T. R. Milburn, Past-President of the Northern Architectural Association; Sir Giles Gilbert Scott, R.A., F.R.I.B.A.; Mr. Charles Woodward, A.R.I.B.A.; Mr. Heaton Comyn, F.R.I.B.A.; Mr. A. E. McKewan, A.R.I.B.A., President of the Birmingham Architectural Association; Mr. Max Clarke, F.R.I.B.A.; Mr. D. Barclay Niven, F.R.I.B.A.; Mr. W. S. Purchon, A.R.I.B.A.; Mr. H. P. Burke Downing, F.R.I.B.A.; Mr. W. A. Pite, F.R.I.B.A.; Mr. H. L. Paterson, F.R.I.B.A., President of the Sheffield, South Yorkshire and District Society of Architects and Surveyors; Mr. G. Hornblower, F.R.I.B.A.; Mr. G. C. Lawrence, F.R.I.B.A., President of the Wessex Society of Architects; Mr. W. T. Jones, F.R.I.B.A., President of the Northern Architectural Association; Mr. Stephen Wilkinson, F.R.I.B.A., President of the York and East Yorkshire Architectural Society; Mr. William H. Ashford, A.R.I.B.A.; Mr. Herbert A. Welch, F.R.I.B.A.; Mr. Raymond Unwin, F.R.I.B.A.; Sir Banister Fletcher, F.R.I.B.A.

A memorial service for Mr. Waterhouse was held at St. George's Church, Hanover Square, on Monday, 5 January. There was a large congregation and the beautiful service was fully choral. Among those present were:

Mr. P. H. Adams, Mr. Maurice B. Adams, Mr. Louis Ambler, Mr. W. H. Atkin-Berry, Mr. Henry V. Ashley, Mr. Herbert Baker, A.R.A.; Mr. R. W. Baxter, Mr. A. Berkshire, Sir Reginald Blomfield, R.A., Litt.D.; Mr. T. A. Darcy Bradwell, Mr. A. Burnett Brown, Mr. A. E. Bullock, Mr. Walter Cave, Mr. and Mrs. George Carter, Mr. Max Clarke, Mr. M. O. Collins, Mr. O. H. Collins, Mr. Heaton Comyn, Mr. R. E. Crossland, Major H. C. Corlette, O.B.E., F.S.A. (representing the Federal Council of the Australian Institutes of Architects); Mr. L. A. Culliford, Mr. Horace Cubitt, Mr. H. W. Currey, Mrs. Crowder and household, Mr. T. B. Daniel, Mr. W. R. Davidge, Mr. E. Guy Dawber, F.S.A., Vice-President R.I.B.A.; Mr. Rudolf Dircks, Mr. P. J. Fay, Mr. Horace Field, Mr. and Mrs. H. M. Fletcher, Mr. Edward Gabriel, Mr. James S. Gibson, Mr. F. T. W. Goldsmith, Mr. W. Curtis Green, A.R.A.; Mr. Gordon, Mr. J. Alfred Gotch, F.S.A., President R.I.B.A.; Mr. H. Austen Hall, Mr. Stanley Hamp, Mr. E. Vincent Harris, Mr. W. H. Harrison, The Rev. Dr. Haynes, Mr. Everard J. Haynes, Mr. Edward Hewetson, Mr. George Hornblower, Mr. George Hubbard, F.S.A.; Mr. and Mrs. W. G. Hunt, Mr. Gilbert Jenkins, Mr. H. V. Lanchester, Mr. G. C. Lawrence (President of the Wessex Society of Architects); Mr. Frank Lishman, Mr. Henry Lovegrove, Mr. H. C. Macfarlane, The Hon. A. McGarel-Hogg, Mr. H. E. Mathews, Mr. A. A. Messer, Mr. G. A. T. Middleton, Mr. E. Arden Minty, Mr. E. C. P. Monson, Mr. J. R. Moore-Smith, Mr. F. Winton Newman, Mr. D. Barclay Niven, Mr. George Northover, Mr. Harold Oakley, Mr. Francis Osler, Mr. H. L. Paterson (President of the Sheffield Society of Architects); Mr. Godfrey Pinkerton, Mr. W. A. Pite, Mr. E. Turner Powell, Mr. A. N. Prentice, Mr. D. S. Prosser, Mr. W. E. Riley, Mr. Llewellyn Roberts, Mr. Harold S. Rogers (Chairman of the Oxford Society of Architects); Mr. and Mrs. H. Ryan-Tenison, Mr. E. J. Sadgrove, Lord Stanmore (representing St. Bartholomew's Hospital); Mr. H. D. Searles-Wood, Mr. W. H. Seth Smith, Sir Giles Gilbert Scott, R.A., Mr. Herbert Shepherd, Mr. W. B. Simpson, Mr. J. Arthur Smith (representing the Hampshire and Isle of Wight Architectural Association); Professor R. Elsey Smith, Mr. H. T. Sugden, Sir Henry Tanner, C.B., I.S.O.; Mr. Walter J. Tapper, Mr. Sydney J. Tatchell, Sir A. Brumwell Thomas, Mr. E. P. Thompson, Mr. F. W. Troup, Mr. Frank T. Verity, Professor Wagstaff (representing the Royal Society of Literature); Mr. Edmund Walters (representing Mr. Detmar Blow); Mr. E. P. Warren, F.S.A. (President of the Berks, Bucks and Oxon Architectural Association); Mr. and Mrs. Michael Waterhouse, Mr. W. E. Watson, Mr. Maurice E. Webb, D.S.O.; Mr. Herbert A. Welch, Mr. Roland Welch, Mr. W. Henry White, Mr. H. W. Wills, Mr. W. J. Wilsdon, Mr. Edmund Wimperis, Mr. Frank Windsor, Mr. Wm. Woodward, Mr. Frank Woodward, Mr. T. C. Yates, Mr. Clyde Young, Mr. Keith Young.

PLANNING FOR GOOD ACOUSTICS.

In the issue of the R.I.B.A. JOURNAL of 5 December Mr. G. A. Sutherland, in the discussion on Mr. Hope Bagenal's paper on "Planning for Good Acoustics," is reported as having said that the New Oxford Dictionary was published in Edinburgh. This, of course, was an error: the Dictionary is published by the Oxford University Press in London, although the firm have a depot in Edinburgh.

THE STORAGE OF IMPORTED TIMBER.

The following report is published at the request of the Science Standing Committee for the information of members:—

A visit was made by Mr. H. V. Milnes Emerson and Mr. Francis Hooper, members of the Science Standing Committee, on the 18th June last, to the Surrey Commercial Dock for the purpose of inspecting the conditions under which imported timbers are stored in readiness for disposal.

Mr. C. A. Daubney [F.], who called the Committee's attention to the matter, was there by invitation, and two representatives from the Port of London Authority took us through a portion of the Dock premises.

It appears that when timber is imported, the owners can remove it at once from the Docks or allow it to be stored there, either under cover or in the open air, paying the Port of London Authority a rent.

The timber under cover is generally in lofty sheds open at each end. When it is stored in the open there is, of course, no protection from the weather. It seems that whether the timber is stored under cover or in the open, the stacks are supported a short distance off the ground on pieces of timber called "dunnage," which rests directly on the ground. When once the timber is stacked, apparently the Port of London Authority takes no responsibility with regard to it, and further consignments of the same material belonging to the same owner may be piled up on top.

Most of the timber seen was soft-wood in the form of match-boarding, wrot boards, deals and other sawn scantlings, also timber in balk from Canada and the Baltic Ports, including Swedish, Norwegian, Russian and Polish products. All classes and qualities of timber are stacked in the Dock.

A recent consignment, just off the ship, was ready for stacking. It was full of rot and decayed parts. Most of the pieces were not rectangular and were obviously from freshly cut sap wood. The bark was still adhering in places.

The foreman naturally helps himself off the top layers of the stack in question, so that as a matter of fact the bottom layers may remain there for a very considerable time. Stacks of timber were seen in the open air quite stained with age, and obviously they had been there for a long time. The timber on which they rested was in many cases rotted and the ground around was littered with broken and rotten pieces. Piles of miscellaneous timber were ready for sale. This timber was left over from dismantled stacks, much of which might be used for building work.

The following points emerge:—

First:—The utmost care should be exercised by architects in the approval of wrot boarding, as it may only be recently imported stuff, and as far as possible they should also be satisfied as to the conditions under which all classes of woodwork have been stored.

Second:—The rubbish which has accumulated round and under the stacks of timber, and which contains the spores of dry rot, should be cleared away, and every effort should be made to render the conditions under which the fresh timber is stored as free from sources of contamination as possible.

PHOTOGRAPHIC RECORD OF BUILDINGS.

It has been suggested that the R.I.B.A. should begin a collection of photographs of buildings in London which possess acknowledged architectural merit and are threatened with demolition so that an accessible record may be available for the use of members.

It is not possible at the present moment, owing to lack of accommodation in the Library, to begin such a collection, but it is hoped that it may be possible before long for the R.I.B.A., with the assistance of other Societies, to accumulate and house a representative collection of London work which is so rapidly disappearing. It has been suggested to the Allied Societies that they also should begin collections of this nature and so preserve a record of good local architecture.

Preliminary steps have already been taken to obtain from the appropriate authorities and societies information which will assist the arrangements for starting a collection when it is possible to do so. Particulars and photographs of little known works in London which members are able to supply will be welcomed.

TOWN PLANNING. THE R.I.B.A. DIPLOMA.

Applications for admission to the next Examination for the R.I.B.A. Diploma in Town Planning, which has been arranged by the R.I.B.A. for its members and Licentiates, must be sent to No. 9 Conduit Street by 1 March 1925. Forms of application may be obtained on application to the Secretary R.I.B.A.

Architects may be reminded that this Examination enables them to prepare for practice in a field where the demand for qualified men at present exceeds the supply; and where for some years there is likely to be an increasing demand. It is very important that architects should not neglect this branch of work or the allied though more limited work of municipal housing. Such work affords great interest and special opportunity for the application of trained imagination and the art of design to the direct benefit of human communities.

If architects are to practise the art of Town Planning they must, however, make themselves masters in the science of the subject. This is not difficult in the sense of involving highly technical matters, but it is extensive, includes many subjects, and involves knowing something of the work of the surveyor, the municipal engineer and the industrial economist. To plan a town, or part of a town, the physical, industrial and commercial needs of communities must be understood, as well as the economic and legal limits within which it is practicable to work.

This work calls for a rather different combination of faculties from those which may enable an architect to distinguish himself in the designing of individual buildings; consequently, it offers success to men of slightly different make-up. The Examination has been arranged to give some guidance as to the kind of knowledge needed as well as to afford a test of competence in it.

THE ARCHITECTURE CLUB.

Sir Giles Gilbert Scott, R.A., was entertained by his fellow-members as the guest of honour at the seventh

Dinner of the Club, held at the Hotel Cecil on 18 December, the President, Mr. J. C. Squire, being in the chair. In the course of the "few words" which had been allotted to him on the programme, the Chairman said that they were proud of the fact that the architect of so magnificent a building as Liverpool Cathedral, which had been generally acclaimed by both the Press and the public, should have been not only one of the original members of the Club, but also a member of the first Executive Committee. Referring to the work of the Club, he thought that most of his hearers would agree that architecture was now receiving more attention from the Press and the public than it had previously done within their memory, and he claimed that the Club had had some share in this, and that it had assisted in promoting good new buildings and preventing the disappearance of some good old ones. It had been decided not to hold an Exhibition in the spring, but the question of staging one in the autumn of 1925 was under consideration.

Lord Newton, in proposing "Architecture," coupled with the name of Sir Giles Gilbert Scott, said that he had constantly been struck by the opportunities which had been lost in London by the Victorian architects, and he could not but reflect how different the West End would appear if it had been the property of a great ground landlord with an artistic temperament like the late Lord Plymouth. He never went down to Westminster without being struck by the great opportunities that had been missed by previous Governments. The heterogeneous collection of buildings that had been allowed to remain on the south side of Parliament Street was a case in point. The ideal of the Victorian statesmen was good square box-like buildings, with windows and doors that shut properly, solid furniture and fireplaces ministered to by innumerable housemaids dragging coal scuttles up numerous flights of stairs. The attitude of politicians towards architecture was noteworthy. He had once heard a Whip, a mere Government Whip, who could not be expected to know anything about architecture—or anything else for that matter—say that he disliked a finial on a public building that was being erected, and that he had accordingly had it changed. The Home Office had never been completed. Some among the audience might not know that the original design included two towers on the Parliament Street front which would have cost £3,000, but they were never built because the Government of the day—probably Mr. Gladstone or some other renowned statesman—had declined to find the money. That was typical of the slipshod way in which Governments carried out their duty.

Sir Giles Gilbert Scott, in reply, said that he owed a great deal to the Club, which had done much to promote public interest in architecture. He believed that the opening of the Cathedral at Liverpool had received more notice and public recognition than the opening of any cathedral in the past, owing to the modern Press. The difficulty of the architect to-day was that he had to consider so many interests. He had to deal with public authorities, clients, building committees and others, all of whose views had to be reconciled with both practical

considerations and æsthetic aims. He had been singularly fortunate in that respect with his cathedral. The Building Committee had been most sympathetic and helpful, and for much of the co-operation in his endeavours he was indebted to the chairman, Sir Frederick Radcliffe, who was sitting beside him that evening. He might mention, in conclusion, one little incident that had happened to him when he was in the cathedral recently. He was approached by a lady seeking information which he endeavoured to supply, when she suddenly remarked that it was extraordinary that so big a thing could have come from so small a brain. "I felt duly chastened," added Sir Giles, amid laughter, "but thought it better to make my apologies and move away before I received any more confidences."

Mr. Norman Wilkinson, proposing the toast of "The Club," said that he was a representative of another Art—that of the Poster—which, like architecture, the public could not escape. The modern street poster, apart from railway posters, was not the work of the artist at all, but of the manufacturer, who too often thought he knew what he wanted without realising that it was not good or what the public necessarily liked. Many fine buildings were absolutely spoilt by the posters that were plastered on or beside them.

Mr. Charles Marriott, in reply, said allusion had been made to the greatly increased attention that was being given to architecture in the Press, and as a journalist who had to read a great many newspapers, he was constantly coming across articles and criticisms on buildings. From this he inferred that the Club was fulfilling one of its primary objects.

J. H. E.-D.

PUBLIC LECTURES ON ARCHITECTURE AT GLASGOW.

Under the auspices of the Workers' Educational Association, the first course of lectures on architecture has recently been delivered in Glasgow University by permission of the University Court, the honorary lecturer being Professor Charles Gourlay, B.Sc., F.R.I.B.A., of the Royal Technical College, Glasgow. The lectures were four in number and their delivery took place on Saturday afternoons at three o'clock in the History Classroom. They were open free to the public and the large classroom was well filled at each lecture by an audience who showed great interest in the subjects dealt with, of which the following is a summary.

In his opening remarks at the first lecture Professor Gourlay stated that his aim would be to study the subject of architecture so as to develop appreciation of its beauty as regards mass, proportion and detail, also to stimulate interest in the art side of the worker's daily labour. He took "Greek Architecture" for his first lecture because it was the most refined style and the fundamental one for students to study. In it there were three definite Orders, or systems, of the enrichment of columns and their superstructures, which, in varied form, have remained in use until the present day. After a general description of the Acropolis of Athens, the professor gave detailed references to one Athenian example of each of the Greek Orders, the Parthenon being described as representing the Doric

Order, the Erechtheion the Ionic, and the Choragic Monument of Lysicrates the Corinthian. In each case the design of the building was fully described and the suitability of the Order as expressing the purpose of the edifice was emphasised.

The second lecture was on "Byzantine Architecture," regarding which Professor Gourlay said that this style of architecture was best studied in its greatest monument—the Great Church of Santa Sophia, Constantinople, of which Chaucer wrote "so fair a church hath Venice none." Explaining its architectural development, the professor showed illustrations of plans and interiors of Roman, Early Christian, and previously erected Byzantine buildings, which enabled a true appreciation to be formed of the great advance made by the magnificently conceived plan of Santa Sophia, with its beautiful interior, upon those of any other buildings then existing. Because of its great size the church was known as "The Great Church," and it was erected for the Emperor Justinian by the architects Anthemius of Tralles and Isidorus of Miletus, between the years 532 and 537, when the Byzantine style was at its culmination; hence its composition and details are of the choicest design and execution.

As an introduction to the third lecture, which was on "English Mediaeval Architecture," Professor Gourlay showed the constructional basis of mediæval architecture, and concretely illustrated this by the study of doorways. Then the nomenclature of the periods of the style was explained and demonstrated by the study of windows with their tracery. Thereafter Durham Cathedral was described and illustrated in order to show the expression and progress of the style. In conclusion, the professor said that to attempt to unravel the architectural history of one of the many mediæval buildings in Britain was a most profitable educational incentive for anyone whose thoughts tended in that direction, because of the excellent insight into the principles and practice of mediæval architecture thereby obtainable.

The last lecture of the series was on "The Roman and Italian Orders of Architecture," in which Professor Gourlay developed his subject in the same interesting manner likely to be comprehensible and attractive to a lay audience as in his previous lectures.

THE A.A. PLAY.

"GUFFAWS; OR, THE DOUBLE ELEPHANT AND CASTLE."

The A.A. has a tradition behind their plays extending, I believe, for some 40-50 years. They do not appear every year but crop up at intervals, and when they do crop up they indicate some unusual activity amongst the ranks of the coming generation of architects.

In other words, they are a healthy sign of progress and thought amongst the younger members of the profession.

In living memory—and this phrase makes one appear very old—there was a brilliant series when Clapham, Carvill and Passmore were the noted figures of the stage. Later, after an interval of a few years, the Purple Patch produced a short series of three plays with Clapham, Carvill, Wontner Smith and J. B. Scott as the principal actors, and now, after the war's interval, the present students of the A.A. have for the last two or three years

revived the good work and introduced to us new plays and new actors.

These plays act as an index of the thoughts of the student, and I noticed that many members of the Board of Architectural Education attended the most recent one—very properly, too; it is impossible to educate without an insight into the desires of those who are being educated.

Now this year there was a delightful scene of successive first and fifth year students whose enthusiasm began full tilt at year one and fizzled out in empty drawing boards at year five. Is that a portent? Another, where the charwoman at the British Museum—for reasons of economy there is only one—sought a safe shelter for a snooze in an empty tomb and to secure a little air left the lid propped open with her dust-pan until she was rescued by the ghosts of the past. Another, where *Commodity* came up against some of the problems of our Art in a peculiarly well-staged, well-acted and well-dressed scene; and yet another where a guide gulled the Americans properly. All of these show the trend of thought into the realms of fancy. Who shall say if this is right or wrong?—but may they get there safely.

Imagination combined with knowledge is a rare combination and in so far as these plays show the conception of this ideal they are on sure ground, but it seemed to me that the scenes which dealt with ordinary everyday affairs such as domestic quarrels and pirates, with their inevitable accompaniment of policemen and pistols, fell very far short of the others. The obvious comparison between the professional and the amateur is conjured up to the detriment of the amateur.

But with that one little criticism I can thoroughly endorse the verdict of the audience that this year's A.A. play was one of the best of the series and foreshadows brilliant ones to come.

M. E. W.

ARCHITECTS' BENEVOLENT SOCIETY.

SCHEME OF INSURANCE.

In view of the interest shown by architects in the Scheme of Insurance, the Council of the Architects' Benevolent Society have recently secured the help of an advisory committee of insurance experts.

The Architects' Benevolent Society is now in a position to answer enquiries on every class of insurance business, whether concerning existing or contemplated policies, and is ready to give considered advice on all such questions.

Notes from the Minutes of the Council Meeting

15 December 1924.

THE TRIBUNAL OF APPEAL UNDER THE LONDON BUILDING ACTS.

Sir Banister Fletcher was appointed as the architect-member of the Tribunal of Appeal in the place of the late Mr. John Slater.

ARCHITECTURE AND CRAFTSMANSHIP.

On the recommendation of the Art Standing Committee, it was decided to arrange an evening lecture during the session of 1925-26 on the subject of "The Co-operation of the Architect and Craftsman," and to arrange a series of popular afternoon lectures in the spring of 1925 on various crafts.

THE GOLD MEDAL OF THE AMERICAN INSTITUTE OF ARCHITECTS.

The congratulations of the Council were transmitted to Sir Edwin Lutyens, R.A., on the occasion of the award to him of the Gold Medal of the American Institute of Architects.

THE PRESIDENCY OF THE ROYAL ACADEMY.

A message of appreciation was sent to Sir Aston Webb on the occasion of his retirement from the Presidency of the Royal Academy, and a message of congratulation was sent to Mr. Frank Dicksee, R.A. (*Hon. Associate*), on his election as President.

THE ROYAL SANITARY INSTITUTE CONGRESS, 1925.

Mr. J. Inch Morrison was appointed as the delegate of the R.I.B.A. at the Congress to be held in Edinburgh in July 1925.

DECIMAL COINAGE AND METRIC MEASURES.

On the recommendation of the Science Standing Committee, it was decided to urge H.M. Government to appoint a Committee to examine and report upon the possibility of a further introduction of the decimal system of coinage and a metric system of measures in this country.

EXAMINATION FEES.

On the recommendation of the Board of Architectural Education, it was decided that students of recognised schools exempted from the Final Examination who attain to candidature for the Associateship and who pay examination fees in their schools shall in future pay fees to the R.I.B.A. totalling £10 10s. instead of £15 15s.

NOMINATIONS FOR MEMBERSHIP.

Three candidates for the Fellowship and nine candidates for the Associateship were nominated for election on 5 January 1925.

THE TRIPLE SCREEN AT HYDE PARK CORNER.

University College,
Cathays Park, Cardiff.

9 December 1924.

SIR,—I am writing a monograph on the Scottish sculptor John Henning (1771-1851), and his sons. I should be very grateful to any of your readers who would tell me who designed and executed the frieze of classical figures on the triple screen of the gate at Hyde Park Corner. The frieze is variously attributed to John Henning, senior, to his son John, and to his son Archibald. I should like to be told the real facts, or to be told where I am most likely to find them.

Yours faithfully,

CYRIL BRETT.

Notices

THE SIXTH GENERAL MEETING.

The Sixth General Meeting (Ordinary) of the Session 1924-25 will be held on Monday, 19 January 1925, at 8 p.m., for the following purposes:—

To read the Minutes of the General Meeting (Business) held on 5 January 1925; formally to admit members attending for the first time since their election.

To read the following Paper:—"Applications in Building and Foundations of Modern Engineering Construction," by Oscar Faber, O.B.E., D.Sc.

To read the Council's Deed of Award of Prizes and Studentships, 1925.

SESSIONAL PAPERS.

In the Sessional Programme of the R.I.B.A. a lecture on "Sculpture in relation to Architecture," on 16 February, by Mr. D. S. MacColl had been arranged. Unfortunately Mr. MacColl's health has made it necessary for him to abandon the lecture. Arrangements will be made as soon as possible for the reading of another paper.

ELECTION OF MEMBERS.

2 MARCH 1925.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 2 February 1925.

AS FELLOWS (6).

- BARKER: RAYMOND TURNER [*A. 1899*], 11 Buckingham Street, Strand, W.C.; New Place, Welwyn, Herts.
 BESWICK: WILLIAM [*A. 1911*], 19 Newgate Street, Chester; 17 Eaton Road, Chester.
 DANNATT: PERCY BOOTHROYD, F.S.I. [*A. 1903*], 18 Nelson Street, Greenwich, S.E.10; 47 Westcombe Park Road, Blackheath, S.E.3.
 PARKIN: WILLIAM GORDON [*A. 1918*], Consular Road, Tientsin, China; 125 Meadows Road, Tientsin, China.
 SLATER: JOHN ALAN, M.A.Cantab. [*A. 1911*], 46 Berners Street, W.1; 8 Wellgarth Road, N.W.11.
 WILSON: JOHN GODDARD [*A. 1923*], Public Works Department, Union Buildings, Pretoria, South Africa.

AS ASSOCIATES (15).

- BARNLEY: GEOFFREY REYNOLDS [*Final Examination*], 3 Paper Buildings, Temple, E.C.4.
 BEST: MAJOR HALSTEAD, R.E. (ret.), F.S.I. [*Special Examination*], St. John's Chambers, Church Street, Blackpool.
 CUMMINGS: CLIFFORD LANE [*Special War Examination*], St. Leonard's Avenue, St. Kilda, Melbourne, Australia.
 ELIJAH: SAMSON ABRAHAM [*Final Examination*], c/o Messrs. Thos. Cook & Son, Hornby Road, Bombay, India.
 ENTHOVEN: RODERICK EUSTACE [*Passed five years' course at Architectural Association—Exempted from Final Examination after passing Examination in Professional Practice*], 3 Cleveland Gardens, Lancaster Gate, W.2.
 FAIRHURST: PHILIP GARLAND [*Passed five years' course at Manchester University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice*], Ellesmere, Macclesfield Road, Wilm-slow, Cheshire.
 HINES: EDWARD GEORGE [*Final Examination*], Stockwood Crescent, Luton, Beds.
 LANGCAKE: WILFRED [*Special Examination*], 109 Grove Lane, Denmark Hill, S.E.5.

MASON: HILDA FRANCES [*Final Examination*], Northcliffe, Felixstowe.

MILLER: JOSEPH HAYDN, B.Arch. Liverpool [*Passed five years' course at Liverpool University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice*], 604 Rose Hill, Pemberton, Wigan.

MILLS: JOHN CHECKLEY ROBINSON [*Special War Examination*], 38 Martin Place, Sydney, N.S.W.

PAKINGTON: HONBLE. HUMPHREY ARTHUR [*Passed five years' course at Architectural Association—Exempted from Final Examination after passing Examination in Professional Practice*], 9 Arundel Gardens, W.11.

PHILLIPS: LIONEL BLYTHEWOOD [*Special War Examination*], 6 Wyatt Avenue, Burwood, Sydney, N.S.W.

STEELE: HAROLD ROOKSBY [*Final Examination*], 87 Victoria Street, Westminster, S.W.1.

TOWNSEND: JOYCE ELEANOR [*Passed five years' course at Architectural Association—Exempted from Final Examination after passing Examination in Professional Practice*], 9 Gray's Inn Square, Gray's Inn, W.C.1.

AS HON. ASSOCIATE (1).

STEGGALL: JOHN EDWARD ALOYSIUS, M.A.Cantab, F.R.S.E., Professor of Mathematics in the University of St. Andrews, at University College, Dundee; Woodend, Perth Road, Dundee.

LONDON TRAFFIC AND THAMES BRIDGES.

Mr. W. R. Davidge is reading a paper before the Town Planning Institute on Friday, 16 January, at 6 p.m. on the subject of "London Traffic and Thames Bridges."

The discussion will be opened by Sir Lynden Macassey.

The meeting will be held at the Institution of Mechanical Engineers, Storey's Gate, Westminster. Members and licentiates of the R.I.B.A. are invited to attend.

BOARD OF ARCHITECTURAL EDUCATION.

R.I.B.A. EXAMINATIONS.

NOVEMBER AND DECEMBER 1924.

The questions set at the Intermediate and Final (or Special) Examinations held in November and December 1924 have been published and are on sale at the Royal Institute, price 1s. 6d. (exclusive of postage).

LOAN LIBRARY CATALOGUE.

A new catalogue, brought up to date, of the Loan Library has recently been compiled, and can be now obtained on application at the R.I.B.A., price 1s. 6d., postage 3d. extra.

THE LIGHTING OF PICTURE GALLERIES AND MUSEUMS.

A few more copies of Mr. Hurst Seager's paper on "The Lighting of Picture Galleries and Museums," reprinted from the R.I.B.A. JOURNAL, Vol. XXX, No. 5, 1923, have become available and can be obtained on application to the Secretary R.I.B.A., price 1s. 6d. per copy.

ERRATA.

In the JOURNAL of 22 November, it was stated that a renewal of the (Archibald Dawnay) Scholarship of £25 had been granted to Mr. A. C. Cameron. This should have been Mr. A. E. Cameron.

The Examinations

INTERMEDIATE.

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London from 21 to 27 November, and in Leeds from 21 to 26 November. Of the 58 candidates who presented themselves, 18 passed and 40 were relegated. The successful candidates were as follows, the names being given in order of merit as placed by the Examiners:—

HUME: BERTRAM STUART [P. 1924], 24, Upper Gloucester Place, Dorset Square, W.
BOURNE: JOHN HENRY [P. 1924], 24, Cotham Road, Cotham, Bristol.
PRICE: ARTHUR JOHN [P. 1924], The Firs, Meaford, Stone, N. Staffs.
SUTCLIFFE: GORDON [P. 1923], 60, Dallas Road, Lancaster.
RABY: LAURENCE [P. 1922], 3, Hunter Street, Brierfield, Lancs.
BUNCE: GERALD EDGAR [P. 1924], 76, Howard Road, Westbury Park, Bristol.
LINFORD: ALBERT LOUIS [P. 1924], "Kelvestone," Cannock, Staffs.
MOORE: SHIRLEY SIMPSON [P. 1922], 20, West Avenue, Leicester.
SAVAGE: HERBERT [P. 1923], 4, Westminster Road, Liscard, Wallasey, Cheshire.
FRASER: JAMES MILNER [P. 1924], 73, Western Road, Woodside, Aberdeen.
DOW: WILLIAM ERIC [P. 1913], 21, Viewforth Terrace, Edinburgh.
ABRAMS: EDWARD DE LA TOUR [P. 1922], "Hutton Mount," Limpsfield, Surrey.
DOWN: ALBERT HENRY [P. 1919], "Cranmere," Denmark Road, Exeter.
DUNCAN: DOUGLAS GRIEVE [P. 1923], The Cottage, Scotland Road, Carlisle.
GRADDON: REUBEN HAROLD [P. 1921], 71, Virginia Street, Southport.
PEGG: ALFRED LLOYD FRANK [P. 1921], Stanley Road, Kenrick Road, Mapperley, Nottingham.
RULE: WILLIAM CECIL [P. 1922], 69, Knatchbull Road, Camberwell, S.E.
TITLEY: PERCIVAL EDWARD [P. 1921], 23, Clarence Street, Warrington.

THE FINAL AND SPECIAL.

The Final and Special Examinations, qualifying for candidature as Associate R.I.B.A., were held in London from 4 to 11 December. Of the 37 candidates admitted (two of whom took Part II only), 8 passed and the remaining 29 were relegated. The successful candidates were as follows:—

BARNESLEY: GEOFFREY REYNOLDS [S. 1922], 3, Paper Buildings, Temple, E.C.4.
BEST: HALSTEAD [Special], 46, Reads Avenue, Blackpool.
ELIJAH: SAMSON ABRAHAM [S. 1922], 3, Hungerford Road, N.7.
HINES: EDWARD GEORGE [S. 1920], Stockwood Crescent, Luton.
HOLLINSHED: CHARLES NEVILLE [Special], Cowley House, Cowley, via Uxbridge.
LANGCAKE: WILFRED [Special], 109, Grove Lane, Denmark Hill, S.E.5.
MASON: HILDA FRANCES [S. 1923], Northcliffe, Felixstowe.
STEELE: HAROLD ROOKSBY [S. 1921], 87, Victoria Street, Westminster, S.W.1.

EXAMINATION IN PROFESSIONAL PRACTICE FOR STUDENTS OF RECOGNISED SCHOOLS EXEMPTED FROM THE FINAL EXAMINATION.

The following candidates passed this examination, which was held on 9 and 11 December:—

ASHBURNER: EDWARD HEATHCOTT (Liverpool University).
FAIRHURST: PHILIP GARLAND (Manchester University).
VELARDE: FRANCIS XAVIER, (Liverpool University).

FINAL EXAMINATIONS.

ALTERNATIVE PROBLEMS IN DESIGN.

Instructions to Candidates.

1. The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, Royal Institute of British Architects, 9 Conduit Street, W., on or before the dates specified below.

2. Each set of drawings must be signed by the author, AND HIS FULL NAME AND ADDRESS, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the student that the design is his own work and that the drawings have been wholly executed by him. In the preparation of the design the student may profit by advice.

4. Drawings for subjects (a) are to have the shadows projected at an angle of 45° in line, monochrome, or colour. Drawings in subjects (b) are to be finished as working drawings. Lettering on all drawings must be of a clear, scholarly, and unaffected character.

LXXIX

(a). *A Gateway and Screen.* A quadrangle has buildings on three sides, and these are of fine architectural character, the style assumed being left to the students. The wings of the buildings are 120 feet apart, and are to be connected by some form of screen which should not entirely obstruct the view of the quadrangle.

A design is required for the screen which should have a central feature consisting of an entrance gateway or gateways allowing access for carriages and pedestrians. No accommodation for a gate-keeper is required. The gateway and screen are to be erected as a memorial.

Drawings required:—

Plan from wing to wing to $\frac{1}{2}$ -inch scale.

Elevation with wing blocks indicated to $\frac{1}{2}$ -inch scale.

Cross section through the central feature to $\frac{1}{2}$ -inch scale.

$\frac{1}{2}$ -inch detail of some portion of the central feature.

(b). Working drawings for subject No. LXXVII (a), *A Boys' Club*. The design for the Boys' Club may, after it has been approved, be re-submitted with the addition of one complete section through the whole building passing through the staircase and a complete $\frac{1}{2}$ -inch detail of the portion of the front where the section is cut.

LXXX

(a). A design for a *Doctor's House in a country town* on a corner site 60 feet by 120 feet at the junction of two main roads.

Accommodation required:

Entrance hall.
Cloak room.
Drawing room.
Dining room.
Kitchen and usual offices.

Patients' entrance.
Waiting room.
Consulting room.
Small dispensary.
Lavatory accommodation.

Five or six principal bedrooms, including Day and Night Nurseries.
Two maids' rooms.
Bathrooms, etc.

Garage for one car, which should not be too near the house.

Drawings required :—

Plans of each floor, to $\frac{1}{8}$ -inch scale.
Two elevations, to $\frac{1}{8}$ -inch scale.
Two sections, to $\frac{1}{8}$ -inch scale.

The lay-out of the garden is not required, but the north point must be indicated.

(b). Working drawings for Subject No. LXXXVIII (a), *A Small Shop*.

The design for a Small Shop may, after it has been approved, be re-submitted with the addition of :

$\frac{1}{2}$ -inch elevation of part of the front.
 $\frac{1}{2}$ -inch section through the front wall, which should include a portion of the roof.

Explanatory plans of different levels.

LXXXI

(a). A design for an *Airway Customs House*. This building is to be erected in a large aerodrome adjoining the landing ground.

The accommodation generally should consist of :—

An ample vestibule, open or closed.
Two customs rooms for the examination of baggage, one for arrivals, and one for departures, about 600 square feet each.

In addition, one or two small offices for the customs officials, toilet accommodation for men and women passengers, small separate waiting room for ladies.

Buffet.

Waiting hall about 1,000 square feet.

Small service kitchen.

Store rooms.

Staff lavatories.

Drawings required :—

One plan to $\frac{1}{8}$ -inch scale.
Two elevations to $\frac{1}{8}$ -inch scale.
Two sections to $\frac{1}{8}$ -inch scale.

(b). Working drawings for Subject No. LXXIX (a), *A Gateway and Screen*.

The design for a Gateway and Screen may, after it has been approved, be re-submitted with the addition of :—

$\frac{1}{2}$ -inch elevation, section and plan of the whole or a part of the central feature, all sufficient to show the construction.

LXXXII

(a). A design for a *Riverside Bathing Establishment*, which it is proposed to erect on a level site on the bank of a river in wooded country on the outskirts of a country town.

It is approached by a public road which is parallel to the river and 50 feet from it.

It is proposed to deepen the river at the point where the establishment is situated and to form an embankment which is 4 feet above the average height of the river.

Steps and diving boards should be included in the scheme.

Accommodation required :—

Entrance hall with pay-box and attendants' office.

Store for deposit of valuable articles.

Towel and costume store.

30 dressing boxes for each sex.

4 shower baths for each sex.

Lavatory accommodation for each sex.

Above the hall and dressing boxes there is to be a terrace for tea, part of which is to be permanently covered, accessible both for bathers and for the public. Con-

venient kitchen and services are required for the preparation of refreshments.

Drawings required :—

Plan to $\frac{1}{16}$ -inch scale.

Two cross sections to $\frac{1}{16}$ -inch scale.

Two elevations to $\frac{1}{16}$ -inch scale.

$\frac{1}{2}$ -inch detail of central portion.

(b). Working drawings for Subject No. LXXX (a), *A Doctor's House in a country town*.

The design for a Doctor's House may, after it has been approved, be re-submitted with the addition of :

$\frac{1}{2}$ -inch section through the principal staircase.

$\frac{1}{2}$ -inch part of front elevation to show window and door.

LXXXIII

(a). A design for a *Private Chapel*. On the edge of a lofty terrace from which the ground slopes steeply down to gardens at a lower level it is proposed to erect a Private Chapel. The Chapel is connected with a large house by a covered way, but an additional entrance should also be provided. The congregation would not usually exceed 50. An organ, font and small vestry should be provided.

Drawings required :—

$\frac{1}{16}$ -inch scale small block plan showing the relation between the Chapel and the house, covered way and terrace.

$\frac{1}{8}$ -inch scale plan of the Chapel and of a portion of the covered way.

Two elevations to $\frac{1}{8}$ -inch scale. One of the elevations should show the side towards the terrace.

Two sections to $\frac{1}{8}$ -inch scale.

$\frac{1}{2}$ -inch detail of one of the entrance doorways.

(b). Working drawings for Subject No. LXXXI (a), *An Airway Customs House*.

The design for an Airway Customs House may, after it has been approved, be re-submitted with the addition of :—

Half-inch scale elevation, section and plan of part of the building, all sufficient to show the construction.

LXXXIV

(a). A small industrial firm wishes to erect a *Garage* adjoining the factory and facing the main road. The site is 100 feet road frontage and 60 feet in depth.

Accommodation required :—

Ground floor : garage room for 5 lorries and 2 private cars.

Work-room.

Store.

Lavatory accommodation.

A portion of the site should be arranged to provide washing space.

The part reserved for lorries should be top-lighted as far as possible.

First floor : Two chauffeurs' flats entered separately from the street.

Drawings required :—

Two plans to $\frac{1}{8}$ -inch scale.

Two sections to $\frac{1}{8}$ -inch scale.

Front elevation to $\frac{1}{8}$ -inch scale.

(b). Working drawings for Subject No. LXXXII (a), *A Riverside Bathing Establishment*.

The design for a Riverside Bathing Establishment may, after it has been approved, be re-submitted with the addition of :—

$\frac{1}{2}$ -inch detail of a portion of the exterior towards the river.
 $\frac{1}{2}$ -inch cross section through the centre, sufficient to show the materials and treatment.

Dates for Submission of Designs in 1925.

Subj. LXXXIX. . . 28 Feb.	Subj. LXXX . . . 30 Apr.
" LXXXI. . . 30 June	" LXXXII. . . 31 Aug.
" LXXXIII. . . 31 Oct.	" LXXXIV. . . 31 Dec.

Competitions

ROYAL SOCIETY OF ARTS.

MEMORIAL LIBRARY FOR A COLLEGE COMPETITION.

In order to encourage the study of designs for industrial purposes the second series of open competitions organised by the Royal Society of Arts will include a competition for a Memorial Library for a College suitable for housing a small but rare collection of books.

The conditions are as follows :

A Travelling Scholarship of the value of £150 for one year will be offered on the following conditions :

Candidates must not be over 35 years of age. They must be prepared to travel in France, Italy, Spain or Flanders for six months, which, however, may be broken up into periods of, say, three or two consecutive months.

SUBJECT OF COMPETITION.

The subject is a Memorial Library for a College, suitable for housing a small but rare collection of books.

The superficial area of the room is not to exceed 1,500 feet. The method of arranging the bookcases and displaying a few *objets d'art* is left to the competitor. Cost is not a primary consideration, and the use of expensive woods, as well as inlays of ivory, ebony or metal, in addition to marble, can be considered.

In a suitable place a commemorative panel or some other *motif* should remind the visitor of the origin of the Library. The scheme of the ceiling, which can be treated as a space for decorative painting, as well as the pattern of the floor, must harmonise with the whole design.

A preliminary competition of twelve hours will be held in London and other centres in April 1925. Candidates must give notice of their intention to compete to the Secretary of the Royal Society of Arts, not later than 14 March. For this competition the following drawings will be necessary :

A plan of the floor, one section, and a plan of the ceiling, all to the scale of a quarter of an inch to a foot.

For the final competition two months will be allowed to the competitors, selected after the first competition. The finished drawings are to include the following :

Plans of floor and ceiling and two sections to a scale of half an inch to a foot, a detail drawing of the fireplace or some other feature, showing the complete height and treatment of the room from floor to ceiling.

Competitors should bear in mind that electric lighting and central heating are to be considered.

The competition will take place in June 1925.

LEAGUE OF NATIONS.

COMPETITION FOR THE SELECTION OF A PLAN WITH A VIEW TO THE CONSTRUCTION OF A CONFERENCE HALL FOR THE LEAGUE OF NATIONS AT GENEVA.

The League of Nations will shortly hold a competition for the selection of a plan with a view to the construction of a Conference Hall at Geneva. The competition will be open to architects who are nationals of States Members of the League of Nations.

An International Jury consisting of well-known architects will examine the plans submitted and decide their order of merit.

A sum of 100,000 Swiss francs will be placed at the disposal of the Jury to be divided among the architects submitting the best plans.

A programme of the competition will be ready in February, 1925, and will be despatched from Geneva so that Governments and competitors may receive copies at approximately the same date. Copies for distant countries will therefore be despatched first.

The British Government will receive a certain number

of free copies. These will be deposited at the Royal Institute of British Architects, and application should be made to the Secretary, R.I.B.A., 9, Conduit Street, W.1, by intending competitors.

Single copies can be procured direct from The Secretary-General of the League of Nations at Geneva, for the sum of 20 Swiss francs, payable in advance, but will not be forwarded until after the Government copies have been despatched.

On the nomination of the President of the Royal Institute, Sir John Burnet, A.R.A., has been appointed as the British representative on the Jury of assessors.

UGANDA RAILWAY NEW OFFICE, NAIROBI.

Apply to the Crown Agents for the Colonies, 4 Millbank, Westminster, S.W.1. Closing date for receiving designs, 28 February 1925. Assessor : Mr. William Dunn, F.R.I.B.A. Deposit £1 1s.

"Reference New Railway Offices. Many requests received from competitors for extension of competition. Agree to one month extension. Please advertise this. Lists of questions and answers being sent by first mail for distribution."

THE NEW INSTITUTE FOR THE BLIND, BUENOS AIRES, ARGENTINE REPUBLIC.

An International Competition has been promoted for the Argentine Institution for the Blind, Buenos Aires, Argentine Republic.

A small number of copies of the Conditions have been deposited in the R.I.B.A. Library for the information of British Architects who may desire to compete.

MOLD HOUSING SCHEME.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

MASONIC MEMORIAL COMPETITION.

Apply to The Grand Secretary, Freemasons' Hall, Great Queen Street, W.C.2. Last day for applying for conditions, 23 August 1924. Deposit, £1 1s. Closing date for receiving designs, 1 May 1925. Assessors : Sir Edwin Lutyens, R.A. [F.] (appointed by the President); Mr. Walter Cave [F.], Mr. A. Burnett Brown, F.S.I.

MANCHESTER ART GALLERY.

Apply to the Town Clerk, Town Hall, Manchester. Closing date for receiving designs, 28 February 1925. Assessors : Professor C. H. Reilly, O.B.E. [F.], Mr. Percy S. Worthington, Litt.D., F.S.A. [F.].

BRANCH PUBLIC LIBRARY, HAREHILLS, LEEDS.

Assessor, Mr. Percy S. Worthington, M.A., Litt.D., F.R.I.B.A. Last day, 16 February 1925. Apply to :—Thos. Thornton, Town Hall, Leeds.

BETHUNE MEMORIAL TO THE MISSING.

The Imperial War Graves Commission desire Members and Licentiates of the Royal Institute to be reminded that applications to take part in the above Competition from persons other than those who had signified their intention of competing on or before 1 January 1924 cannot be considered. Due notice of this regulation was published in the Professional Press on various occasions during August and September, 1923.

Members' Column

FORMATION OF PARTNERSHIP.

GEORGE HOLLINS, A.R.I.B.A., M.S.A., architect and surveyor, Lloyd's Bank Chambers, Newcastle, has taken into partnership Reginald Lucas Jones, and the title of the firm will now be George Hollins, A.R.I.B.A., M.S.A., and Reginald Lucas Jones, architects and surveyors, Lloyd's Bank Chambers, Newcastle, Staffs.

PARTNERSHIP WANTED.

A.R.I.B.A., F.S.I., good all round, 20 years' private practice, owing to present depression requires partnership or some form of collaboration producing about £300 a year. Capital; subject to investigation.—Apply Box 122, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

APPOINTMENTS VACANT.

VACANCIES exist for Architectural Assistants in the Public Works Department, Government of Hong Kong. Three years' agreement. Salary, £460 to £500, with further annual increments to a maximum of £1,000, subject to efficiency. Candidates should be Associates R.I.B.A., unmarried, age 21-32, experienced in design, working drawings, details, specifications and some knowledge of quantities. Experience in steel-framed buildings and reinforced concrete desirable. Further particulars and application forms can be obtained on application to the Crown Agent's Office, 4 Millbank, London, S.W.

APPOINTMENT WANTED.

STUDENT R.I.B.A. desires post in London. Age 23. Articled 1919-1923 in office where the following work was carried out: Hospitals (2), additions to public schools, convalescent home, public library, many banks, church and much good domestic work.—Apply Box 1125, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

"COUNTRY LIFE" COMPETITION.

"COUNTRY LIFE" Competition. Licentiate with great experience of black and white illustration offers his services in the preparation of perspectives for the above. Has visited site and has all particulars.—Box 6124, Secretary R.I.B.A., 9, Conduit Street, W.1.

CHANGE OF ADDRESS

MR. GEORGE P. ALLEN [F.R.I.B.A.] has removed his Offices from 79 High Street, Bedford to No. 81 High Street, Bedford. Telephone number as before No. 347.

OFFICE BOY RECOMMENDED.

A MEMBER recommends a youth as office boy. Good references.—Apply to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

WILL man or woman of simple tastes, perhaps lover of books and garden, join architect and wife in small country house. Baker Street 25 mins. Quiet and privacy. Intelligent cooking. Reasonable expenses.—Box 1441, c/o Secretary R.I.B.A., 9 Conduit Street, W.

Minutes V

SESSION 1924-25.

At the Fifth General Meeting (Business) of the Session 1924-1925, held on Monday, 5 January, 1925, at 8 p.m., Mr. J. Alfred Gotch, F.S.A., President, in the Chair.

The attendance book was signed by 6 Fellows (including 4 Members of the Council) and 5 Associates (including 1 Member of the Council).

The Minutes of the Meeting held on 15 December 1924 having been taken as read were confirmed and signed by the Chairman.

The Hon. Secretary announced the decease of:—

Mr. Paul Waterhouse, F.S.A., Past-President,

Sir William Emerson, Past-President,

and it was RESOLVED that the regrets of the Royal Institute for the loss of these members be recorded in the Minutes.

The following members attending for the first time since their election were formally admitted by the Chairman:—

Mr. C. H. Brightiff [A.] and

Mr. R. J. Troup [A.].

The following candidates for membership were elected by a show of hands:—

AS FELLOWS (3).

LAY: CECIL HOWARD [A. 1912].

LOWRY: ROBERT [A. 1916], Denham, Bucks.

WRATTEN: EDMUND LIVINGSTONE [A. 1902].

AS ASSOCIATES (9).

DAWSON: JAMES STOTT [Passed six years' course at Robert Gordon's Colleges, Aberdeen—Exempted from Final Examination after passing Examination in Professional Practice], Aberdeen.

DONALDSON: ROBERT WEIR, B.Arch. Liverpool [Passed five years' course at Liverpool University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Bootle, Liverpool.

HISCOCK: LESLIE ROBERT [Passed five years' course at Architectural Association—Exempted from Final Examination after passing Examination in Professional Practice].

NORBURY: WILLIAM ALAN, B.A. [Passed five years' course at Manchester University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Hale, Cheshire.

OWEN: WILFRED HERBERT [Passed five years' course at Manchester University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Manchester.

SHANKS: GEORGE FERGUSON [Passed five years' course at Glasgow School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Glasgow.

SILCOCK: HUBERT SPENCER, B.Arch. Liverpool [Passed five years' course at Liverpool University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Warrington.

TURNER: RALPH HENRY, B.Arch. Liverpool [Passed five years' course at Liverpool University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Bridport, Dorset.

WILLIS: REGINALD JOHN, M.A. [Passed five years' course at Manchester University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Manchester.

The President called the attention of the meeting to the very interesting collection of photographs of Trondhjem Cathedral kindly presented to the Royal Institute by Professor Olaf Nordhagen, Honorary Corresponding Member, also to a further collection of Etchings of New York buildings kindly presented by Mr. Joseph Pennell, Honorary Associate, and on the motion of the President it was RESOLVED that a very hearty vote of thanks be passed to these Honorary Members for their most interesting gifts.

The Meeting closed at 8.15 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

R.I.B.A. JOURNAL.

Dates of Publication.—1924: 8th, 22nd November; 6th, 20th December. 1925: 10th, 24th January; 7th, 21st February; 7th, 21st March; 4th, 25th April; 9th, 23rd May; 13th, 27th June; 18th July; 15th August; 19th September; 17th October.

